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The attitude of physical education teachers towards the implementation of co-educational physical education as an aspect of Title IX

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THE ATTITUDE OF PHYSICAL EDUCATION TEACHERS
TOWARDS THE IMPLEMENTATION OF
CO-EDUCATIONAL PHYSICAL EDUCATION
AS AN ASPECT OF TITLE IX

A Thesis
Presented to
the Faculty of the Department of Physical Education
University of the Pacific

In Partial Fulfillment
of the Requirements for the Degree
Master of Arts

by
Michele Helane Pavin

May 1979

This study is dedicated to my parents,
Joseph and Elaine Pavin, who continually support
and encourage me throughout my many career endeavors.

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Chapter 1

INTRODUCTION

On July 21, 1975, President Gerald R. Ford signed Title IX of the Educational Amendments of 1972, making sex discrimination illegal in public schools. (Cole,1976:576) In response to this action, schools were required to examine their existing curriculum to determine the adjustments which were needed in order to comply with the new legislation. (Selby,1977:188)

Physical education and athletics made up approximately four percent of the text of Title IX, yet it resulted in the greatest amount of controversy (Mazzarella,1977:8). Of all courses effected, it was expected that physical education would experience the most drastic changes. (Selby,1977:188) In anticipation of this transition, an adjustment period of three years was authorized, (one year for elementary schools), by the Department of Health, Education, and Welfare, which warned that this period was for "transition, not delay!" (Cole,1976:576) The final date for conforming to the regulations set forth in Title IX was July 21, 1978.

The first step towards compliance by secondary physical education departments involved a self-evaluation of program practices and policies within each school.

This was to have been completed by July, 1976, allowing the remaining two years in which to implement any necessary changes. (JOPER,1977:19) Some considerations made during the department self-evaluation included the following:

- Does the sport reflect the interests and abilities of both sexes?
- Are there equal provisions of supplies and equipment?
- Are there equal facilities, (i.e. locker rooms, practice and play rooms)?
(Neill,1975:59)

However, within the physical education curriculum the legislation has allowed for certain exceptions with relation to the level of competitiveness. Those activities that remain segregated are wrestling, boxing, basketball, ice hockey, football, rugby, and other such sports involving bodily contact. (Selby,1977:188) Furthermore, a course requirement placed upon one sex group is now mandatory of both groups equally. (JOPER,1977:20)

Consequently, as a result of, and in order to comply with Title IX, co-educational physical education was implemented into many secondary school programs nationwide.

Statement of Problem

Due to the legislation which was passed, certain regulations were imposed on the schools. As a result,

various methods of implementation were proposed, with one suggestion, in particular, rising above all others which seemed to best meet the requirements set forth in Title IX: sexual integration. Therefore, the purpose of this study was to determine the attitudes held by physical education teachers towards the implementation of Title IX with particular emphasis on co-educational physical education. In addition to the original issue, the following sub-problems were established:

1. To determine if a significant difference in attitudes towards the implementation of co-educational physical education existed between junior high (or middle school) and senior high school physical education teachers.

2. To determine if a significant difference in attitudes towards the implementation of co-educational physical education existed between male and female physical education teachers.

3. To determine if a significant difference in attitudes towards the implementation of co-educational physical education can be attributed to teachers with varying years of experience.

Delimitations

This research study, dealing with the attitudes of teachers towards the implementation of co-educational

physical education was delimited as follows:

1. The teachers chosen to participate in this study were selected from school districts in the Stockton California area.
2. Only public school physical education teachers were included in this study.
3. Teachers selected taught grades 7 through 12 only.

Assumptions

The following were considered basic assumptions of this study:

1. Physical education teachers hold attitudes towards the implementation of co-educational physical education.
2. These attitudes were obtainable through the use of a structured questionnaire.
3. The subjects responded truthfully to the survey questions.
4. Individuals who did not respond to the questionnaire held similar views as those teachers who did respond.

Hypotheses

Based upon thorough research and as a result of information obtained through pertinent literature,

the following hypotheses were formulated:

1. Physical education teachers generally maintain a positive attitude towards the implementation of co-educational physical education.
2. There will be no significant difference between junior high (or middle school) and senior high school physical education teachers' attitudes towards the implementation of co-educational physical education.
3. There will be no significant difference between male and female physical education teachers' attitudes towards the implementation of co-educational physical education.
4. There will be no significant difference between physical education teachers with years of experience ranging from one to ten years, eleven to twenty years, or more than twenty years in regard to their attitudes toward the implementation of co-educational physical education.

Importance of Study

Much of the research already completed on this subject has dealt primarily with the explanation of, and requirements for, compliance with Title IX. (Neil 1975; Blaufarb, 1976; Craig, 1976; et al) With the final date for implementation now past, it was felt by this researcher that a survey of teachers' feelings and attitudes towards changes they were required to make was of importance as a

means of determining the success of Title IX.

As previously discussed, the ultimate goal of Title IX was to eliminate sex discrimination in educational programs and activities. (Graham,1975:1) In order to comply with this legislation, co-educational physical education was instituted into the curriculum of many secondary schools. As some of the related literature revealed, there was a great deal of resistance towards this seemingly untraditional method of physical education. In anticipation of the changes about to take place in the over-all educational system, Selby predicted that "...any change from the status quo will cause some problems and necessary adjustments." (Selby,1977:191) However, this and other similar research was conducted prior to the final date of implementation. Presently many physical education teachers are experiencing Title IX in action, and therein lies the importance of this study.

This researcher has attempted to provide up-to-date, post-implementation attitudes and feelings towards Title IX, with an emphasis on co-educational physical education, as maintained by those teachers directly effected.

Definition of Terms

The following terms were used throughout this study. To assist the reader, definitions of selected terms are provided below:

Co-educational

The definition of co-educational referred to that which is "open to both men and women." (Webster,1977:216)

Discrimination

Discrimination, as defined by Webster (1977:326) was, "to make a difference in treatment...on a basis other than individual merit."

Junior High School

A school including grades 7 through 9 is generally referred to as a junior high school. (Webster,1977:627)

Middle School

A school including grades 5 through 8 is generally referred to as a middle school. (Webster,1977:728)

Physical Education

Physical education was defined as "instruction in the development and care of the body ranging from simple calisthenic exercise to a course of study providing a training in hygiene, gymnastics, and the performance and management of athletic games. (Webster,1977:866)

Senior High School

A school including grades 10 through 12 is generally referred to as a senior high school. (Webster,1977:1055)

Title IX

Title IX of the Education Amendments of 1972 states that:

No person in the United States shall, on the basis of sex, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any education program or activity receiving Federal financial assistance. (U.S. Congress:1972,148)

Overview of Study

Chapter 1 introduced the topic of this study: the attitudes of physical education teachers towards the implementation of co-educational physical education as prescribed through the Title IX legislation. Chapter 2 will offer a comprehensive review of the related literature, beginning with the history of womens' role in sports and the inequities thereof. Also in the following chapter is an extensive explanation of Title IX and co-educational physical education. Chapter 3 will provide a discussion of the methods and procedures employed in this study for the purposes of gathering research information. Chapter 4 will review the results of the study as obtained through the use of a structured questionnaire. Finally, Chapter 5 will present conclusions drawn, and recommendations made, based upon the results recorded in Chapter 4.

Chapter 2

REVIEW OF LITERATURE

In schools throughout the United States, sex segregated physical education classes have long been an accepted practice. Sadker (1976:18) explained that "separate goals, separate activities, and separate gyms" were the rule rather than the exception. As a result, both boys and girls have been discouraged and denied from exploring the full range of physical education activities.

History of Womens' Role in Sports

Men have generally been encouraged to participate in sports because it allowed them to demonstrate such traits as strength, agressiveness, achievement, self-confidence and leadership. According to Graham, (1975:3) these characteristics have generally been looked upon as "masculine--quite becoming to any man." Women were not supposed to display these qualities and were, therefore, discouraged from athletic participation. The perpetuation of these societal mores have made it increasingly difficult for many women to assume an active role in the world of sports.

In reviewing the history of sports Riley (1976:6) discovered there was little mention of women. From the time of ancient Greece up to the nineteenth century, women

played virtually no role in sports. However, with the twentieth century came the increasing popularity of tennis, volleyball, basketball, along with track and field, and the trend of women in sports had begun. Athletic opportunities for American women had reached an all-time high. After World War I, schools placed much emphasis on general education, which included physical education. In addition, in 1918, the Seven Cardinal Principles of Education were published in which attention was also turned to physical education, for girls as well as boys.

Upon completing additional research, Riley (1976:6) reported that during World War II, women began working-- becoming active members of society. Enjoying this new status, many happily left their role as housewife behind them. As a means of relaxation working women began participating in recreational sports. Out of this evolved industrial sports, which were teams sponsored by large companies. These activities were responsible for attracting large numbers of women to athletics. In 1956, momentum was given to girl's competitive athletics as a result of the President's Conference on Physical Fitness of American Youth.

Another major force that aided in the acknowledgement of women in sports as cited by Riley (1976:6) was the women's liberation movement, although the movement was slow to recognize the potential role sports might

play in their quest for equality. Once, however, the movement identified this area of inequality, they helped greatly to contribute to public acceptance of female athletes.

In an article by Graham (1975:2) legislation prior to Title IX was discussed. Graham explained that the passage of the Civil Rights Act of 1964 brought new hope to groups seeking relief from discrimination. However, nowhere in this law was any reference made to discrimination on the basis of sex. Graham (1975:2) stated:

Legislatures and courts at all levels, reflecting views held in many parts of American society, perceived sex discrimination as less onerous or less invidious than discrimination based upon race, color, or national origin.

In the early 1970's, Graham (1975:2) reported girls who wanted to participate in male-dominated sports had to appeal to the courts. In the beginning, the courts generally ruled against the complainant as in the case of a 1971 court decision which denied a Connecticut high school girl from participating on her all-male high school cross country team. The decision stated that:

The present generation of our younger male population has not become so decadent that boys will experience a thrill in defeating girls in a running contest, whether the girls be members of their own team or an adversary team... Athletic competition builds character in our boys. We do not need that kind of character in our girls, women of tomorrow... (Graham, 1975:4)

Since then, however, according to Riley (1976:7-8), drastic changes have occurred in regard to legislation affecting women in sports. Eventually, a law forbidding sexual discrimination was introduced as an amendment to the Civil Rights Act of 1964, but after extensive Congressional debate, the law emerged as Title IX of the Education Amendments of 1972. It read as follows:

No person in the United States shall, on the basis of sex, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any education program or activity receiving Federal financial assistance. (U.S. Congress, 1972:148)

Title IX Legislation

As previously discussed in Chapter 1, by enacting the Title IX legislation, Congress (1972:149) made discrimination on the basis of sex illegal in an educational institution receiving Federal financial assistance, (i.e. "any public or private preschool, elementary, or secondary school, or any institution of vocational, professional or higher education..."). As reported by Cole (1976:575) this includes 16,000 public school systems and approximately 2,700 post-secondary institutions.

As evidenced by Rosemary Selby's article (1977) on co-educational physical education, there was some resistance towards the implementation of Title IX by physical education teachers. There was also a great deal of confusion on the part of teachers and administrators as to how the new regulations were to be infused into the

curriculum. Several task forces were formed in school districts across the nation, each suggesting similar sets of guidelines to follow. Blaufarb (1976:5-6) identified twelve basic steps to follow in order to implement and comply with the regulations set forth in Title IX specific to physical education. They were:

1. Physical education programs... may not differentiate between students on the basis of sex.

2. Title IX does not require any specific curricula or activities within a physical education program; it requires only those which are offered... be open equally to students of both sexes.

3. Title IX does not specify any particular process for the assignment or selection of students for physical education courses or classes. Any procedure may be used if it does not discriminate on the basis of sex.

4. Students may be grouped by ability, or assessed by objective standards, within physical education classes or activities. Grouping by objective standards of ability may result in groups composed primarily of students of one sex.

5. Students may be separated by sex within physical education classes for participation in wrestling, boxing, rugby, ice hockey, football, and other sports the purpose... of which involves bodily contact.

6. Evaluations of students' skills or progress in physical education must be based on standards which do not have an adverse impact on students of one sex.

7. Physical education facilities and equipment must be allocated without regard to the sex of students or instructors.

8. Physical education staff must be assigned teaching and supervisory duties

(other than locker room supervision) on the basis of their qualifications rather than their sex or the predominant sex of the students in a particular course, class or activity.

9. Physical education staff may not be treated differentially on the basis of sex in hiring, job assignment or classification, compensation, or any other condition of employment.

10. Title IX makes no requirements regarding the administrative structure of the physical education department or staff. If, however, any changes are made to accompany the integration of physical education classes by sex, these changes may not have an adverse effect on the employment of members of one sex.

11. Elementary schools should have been in full compliance with the regulatory requirements for nondiscrimination in physical education by July 21, 1976. Secondary and post-secondary schools should comply full as rapidly as possible, but in no event later than July 21, 1978.

12. If non-compliance with Title IX requirements for nondiscrimination is identified, two forms of action must be taken:

- modifications must be made to correct any policies, procedures, or practices which have been found to discriminate; and
- remedial steps must be taken to alleviate the effects of any discrimination identified.

Federal law does not expect to dictate the specific philosophy or practices that an institution applies to their sports program. However, as Graham (1975:6) explained:

Federal law does require that once a practice or philosophy is determined it be applied equally regardless of sex and that

it not have a disproportionate impact
on one sex.

Co-educational Physical Education

Blaufarb (1976:11) presented evidence that arguments supporting sexually segregated physical education classes have been discredited by recent research. Studies have revealed that in pre-adolescence, females and males are approximately equal in terms of size, flexibility, strength, balance, and other factors important for safety in physical education. While females' bones are smaller than their male counterpart, they are no more fragile. Trained females are not any more susceptible to athletic injury than trained males. It is true that some women are weaker than some men, and some men less agile than some women. This, however, can be attributed to individual differences, not sexual inferiority.

A survey taken at a University of Illinois physical education alumni conference in 1975, asked physical education teachers to express their views on the advantages and disadvantages of Title IX, with particular attention paid to co-educational physical education classes. The findings of this survey as reported by Selby (1977:188,191) revealed that the social aspect of co-educational physical education classes was the major advantage expressed by both male and female respondents. They felt the co-educational atmosphere would better

enable boys and girls to interact on more equal terms. With co-educational physical education, it was felt that boys would begin to regard girls as something other than non-athletes. It would also teach boys to accept girls as individuals in athletics rather than assuming all girls are inferior on the basis of their sex. It was further agreed upon by most of the respondents that co-educational physical education would encourage each department to share equipment and facilities, thus allowing further purchasing power with the additional funds.

If the advantages seemed few, the disadvantages were numerous. Selby (1977:189) noted that physical contact with the opposite sex was a problem cited by both male and female teachers. It was generally felt that many activities require the instructor to have physical contact with the student, but in a co-educational class, such actions might prove to be embarrassing or misinterpreted. An awkward situation anticipated by the teachers was the difficulty males would have dealing with girl's menstrual problems. Many female respondents felt that this was an emotional situation and girls might feel uneasy and embarrassed trying to discuss their problem with a male teacher. The male teachers who cited this as a problem area explained their belief that during menstruation a girl's athletic ability was impaired. However, this attitude revealed the lack of

knowledge on the part of the male respondents. Several studies, dating back to 1923, show there is little, or no, significant difference in females' athletic performance during any phase of her menstrual cycle.

The major problem area cited by both male and female respondents was based upon unforeseen difficulties arising from sex differences such as physical strength, sports skills and competitiveness. Selby (1977:190) found that one anticipated consequence of co-educational physical education was that girls would be inhibited, and feel incapable and inadequate when competing with and against boys. Male teachers felt that boys might be held back from advancing their athletic development because girls had a lower skill level.

Selby (1977:190) further stated that the lack of instructor knowledge was a disadvantage cited by both male and female teachers. Each felt they encounter unique problems in a one-sex class that an instructor of the opposite sex could neither handle, nor cope with.

A final problem cited by Selby (1977:189) concerned locker room supervision. If a man was teaching a co-educational class, he could only attend to the boy's locker room, thus, leaving the responsibility of the girls to one of the female teachers. Locker room supervision by anyone other than the course instructor was regarded as a problem for two reasons: 1) it reduced the amount of control the teacher had with his/her students,

and 2) an additional supervisor was an additional expense. This, however, was viewed more as an administrative problem.

Lockheed (1976:4) suggested that co-education was being used as a panacea for past educational inequities associated with discrimination. She maintained that most past research revealed that co-education has allowed girls and women to participate in educational programs originally designed for boys and men. In the United States, co-educational elementary schools were considered an inexpensive way of teaching girls basic reading and arithmetic. "Co-ed has not meant, however, providing girls the identical instruction as boys." Furthermore, Lockheed emphasized that equal education will not come about merely because classes are co-educational.

Summary

In general terms, the major message of Title IX made sex discrimination in education illegal. Cole (1976:575) explained that the new regulation applied to any institution receiving Federal financial assistance.

An article appearing in a 1977 issue of the Journal of Physical Education and Recreation (JOPER) discussed that as a result of Title IX, all sex designation was removed from class schedules, activity areas, and budgets. Schools were required to provide services to students on a non-discriminatory basis.

The research completed to this time seemed to

indicate a feeling of confusion and misunderstanding regarding the method by which Title IX should be implemented. Following a self-evaluation of physical education practices and policies, administrators and teachers in physical education agreed upon the creation of a co-educational curriculum. A statement made by Mazzarella (1977:9) suggested that the principle of "Girl's P.E." and "Boy's P.E." should become "Student P.E."

Despite mixed feelings towards Title IX and co-educational physical education, (Selby, 1977, Lockheed, 1976, et al.), anti-sexual discrimination is now a part of the Education Code by which teachers are required to adhere.

Chapter 3

PROCEDURES

Chapter 3 contains a discussion of the data-gathering process employed in this study, along with a description of the instrument and the population tested.

Development of the Instrument

In 1975, the physical education department of the University of Illinois held a conference in Chicago for their alumni, and at that time a survey was taken regarding their attitudes towards the implementation of co-educational physical education. Two years later, Rosemary Selby (1977:188) wrote an article summarizing the results of that study, but did not include a copy of the instrument used. The researcher then wrote to the University of Illinois requesting a copy of the original survey questions. This letter can be found in Appendix A.

Upon receipt of the questionnaire, the researcher modified it, so as to meet the specific needs of the study. The final instrument contained three sections: I)Personal Inventory, II)Questions Dealing With Co-ed Physical Education, and III)Questions Dealing With The Teaching Of Co-ed Physical Education. Two different types of response indicators were employed. The first, used in Sections I and III, was a YES/NO type. The second, used in Section II, allowed the respondent to choose from

a range of five alternatives: a)STRONGLY AGREE, b)AGREE, c)UNDECIDED, d) DISAGREE, and e)STRONGLY DISAGREE.

Section I contained seven questions which provided the researcher with some background information on each respondent while maintaining their anonymity. Section II asked nine questions allowing each respondent to express their feelings towards the overall concept and possible effects of co-educational physical education. Section III, composed of five questions, dealt with the teaching aspects of co-educational physical education. A copy of the questionnaire can be found in Appendix B.

The respondents were requested, and encouraged, to provide additional comments. Each section had space for comments with the last page of the questionnaire left entirely for additional comments.

Test of Validity

The completed instrument was submitted to the thesis committee for their expert evaluation. Some items were reworded or eliminated, based upon suggestions and recommendations by the committee. In confirming the validity of the questionnaire the committee members evaluated the content of the instrument checking closely to determine that the questions would solicit the specific information needed to complete the study. The final decision of the committee was a determination that the questionnaire was valid.

Test of Reliability

Having selected the test population, ten physical education teachers not chosen were asked to help in determining the reliability of the instrument. Each teacher was contacted and asked if they would be willing to take part in the test/re-test reliability survey. They were each then sent a questionnaire to complete. After receiving a 90 percent return, the researcher waited a period of ten days and then sent the identical questionnaire again to those nine respondents who had returned the first questionnaire. Altogether, a total of six completed sets were returned.

The statistical test used to compute reliability was the Pearson Product Moment Coefficient of Correlation. An item-by-item comparison was made between each response from the test with each response from the re-test to determine whether the respondents' answers were consistent (see Table 1). An additional subject-by-subject test was conducted to compare the consistency of responses from each subject's first questionnaire to his or her second questionnaire (see Table 2). A final test of reliability was conducted on the overall questionnaire by comparing the total scores from each subject's test with the total scores from each subject's re-test. The overall coefficient of correlation was .92 indicating a strong correlation between the test and re-test (see Table 3).

Table 1
Item-By-Item
Test of Reliability

Variable Pair	N	r = 1.0000
A1 with B1	6	.7746
A2 with B2	6	.8000
A3 with B3	6	1.0000
A4 with B4	6	.9713
A5 with B5	6	.8667
A6 with B6	6	.6742
A7 with B7	6	1.000
A8 with B8	6	.9615
A9 with B9	6	1.0000
A10 with B10	6	1.0000
A11 with B11	6	1.0000
A12 with B12	6	1.7071
A13 with B13	6	No variance in post-test res- ponses. Correlation could not be computed..
A14 with B14	6	1.0000

Item A: Pre-test
Item B: Post-test

Table 2
Subject-By-Subject
Test of Reliability

Subject	N	$r = 1.000$
#1 A with B	9	.9078
#2 A with B	9	.9221
#3 A with B	9	.9230
#4 A with B	9	.9503
#5 A with B	9	.8794
#6 A with B	9	.9609

Item A: Test

Item B: Re-test

Table 3
Overall Questionnaire
Test of Reliability

	Test	Re-test
\bar{x} of total score	36.17	37.50
S.D. of total score	4.67	3.62
r - overall	.92	

Selection of the Test Population

The test population was selected based upon the following criteria:

1. All test participants were secondary physical education teachers in middle schools, junior high schools, and senior high schools.

2. The test participants taught in either the Stockton, Lincoln, Lodi, Manteca, or Tracy school districts.

3. A list of physical education teachers was compiled, using the San Joaquin County school directory.

4. The list of teachers was divided by sex (male/female), and grade level taught (junior high or middle school/senior high).

5. Based upon the number of teachers at each level and within each sex group, calculations revealed that accurate balanced groups of respondents would be achieved by testing sixty teachers, divided into the following four groups:

12 men at the junior high or middle school level.

8 women at the junior high or middle school level.

24 men at the senior high school level.

16 women at the senior high school level.

6. Upon determining the number of teachers to be tested in each group, a Random Number Table was used to

make the final selection.

7. The questionnaire, with a cover letter, was sent directly to the teacher at his or her school. A copy of this cover letter can be found in Appendix A.

8. A follow-up letter, with another copy of the questionnaire, was sent to insure a greater response rate. A copy of this letter can also be found in Appendix A..

Summary

The questionnaire for this study was based on an instrument obtained from the University of Illinois Department of Physical Education. The modified instrument contained three sections, all dealing with teacher attitudes toward Title IX, with an emphasis on co-educational physical education. Validity was determined by the thesis committee and the reliability was established by means of a test/re-test survey. The total test population consisted of thirty-six male and twenty-four female physical education teachers employed at either the middle school level, junior high school level, or senior high school level.

Chapter 4

RESULTS OF THE STUDY

This section is devoted to the discussion and analysis of the information gathered from the research instrument. The questionnaire, previously discussed in Chapter 3, was administered to a randomly selected group of thirty-six male and twenty-four female physical education teachers working at either the middle school, junior high school, or senior high school level in the Stockton, California area. Of the original sixty instructors that were sent the questionnaire, a total of twenty-five men and seventeen women completed and returned it. The Statistical Package for the Social Sciences (SPSS) was employed to statistically analyze all twenty-one items of the questionnaire. The relative frequency (percentage) was calculated for all questions and the results will be reported throughout this chapter in the order in which they appeared in the original survey. Certain data was cross-tabulated in order to analyze the relationships between two selected variables. In addition, further comments which were solicited by the questionnaire will be discussed.

Section I: Personal Inventory

The following items were asked in order to provide the reasearcher with background information on each of the

respondents.

Sex. An attempt was made to survey a group of men and women representative of the actual distribution of male and female physical education teachers employed in the geographical testing area selected. The final group totalled forty-two; twenty-five men and seventeen women or 59.5 percent men and 40.5 percent women. These figures indicated an accurate distribution of male and female teachers as compared with the actual number of male and female teachers employed in the surveyed school districts.

Age. The respondents' ages ranged from twenty-four to fifty-eight, with a mean and median of thirty-nine and a mode of thirty-eight. The average age of the male respondents was thirty-seven and the average age of the female respondents was forty-one.

Grade level. The distribution of teachers in the selected grade levels was proportionate to the actual number of teachers currently teaching middle school, junior high school or senior high school in the school district's involved in this study. Thirty-one percent of the respondents were teaching in middle school or junior high school, and 69 percent were teaching at the senior high school level.

Percent co-ed. The respondents were asked to estimate what percent of their physical education classes

were co-educational. Seventy percent of the respondents stated that, at least, 75 percent of their physical education classes were presently co-educational. Another 9.8 percent estimated that more than half of their physical education program was co-educational. Seventeen percent estimated 26-50 percent of their physical education classes were co-educational and only 2.4 percent expressed that less than one quarter of their physical education program was co-educational.

Years taught. The most experienced respondent had taught thirty years, while two recently employed teachers had taught only two years. The average number of years of teaching experience among all the respondents was fifteen and one half years.

Title IX change. Asked whether or not Title IX had brought about many changes, the respondents replied overwhelmingly in the affirmative. Eighty-three percent felt that many changes had occurred as a result of the implementation of Title IX. The respondents were further requested to provide a brief explanation expounding their personal views. Many comments focused on the formation of co-educational physical education classes and the sharing of equipment and facilities that were once separate. One respondent acknowledged that, "Prior to Title IX our department offered no co-ed classes. I feel it has improved the total program immensely." One respondent commented, "It

has increased the quality of the girls' program...I feel it has worked very well." However, some teachers felt the changes caused by Title IX had detracted from the overall program. A common feeling expressed was that the standards of physical education had been lowered, and as one respondent stated, "...Title IX was responsible for a decrease in competitive behavior."

Better methods. According to 50 percent of the respondents, better methods were available by which to insure sexual equality in physical education, other than the implementation of integrated classes, but few had any alternative suggestions. Thirty-three percent of the respondents viewed Title IX, vis-a-vis co-educational physical education, as the most viable solution towards the problem of educational inequity, and still a third group, representing 16.7 percent of the respondents, declined to answer.

Section II: Questions Dealing With Co-ed Physical Education

Section II consisted of items dealing with co-educational physical education. Following each statement was a rating scale consisting of five alternatives-- a)strongly agree, b)agree, c)undecided, d)disagree, and e)strongly disagree. The respondents thus had five choices from which to choose in response to each questionnaire item in this section. A complete breakdown of the responses to all items in this section along with

additional statistical calculations can be found in Appendix C (see Table 5, page 81).

P.E. classes should be co-ed when the activity taught is no-contact. The respondents were asked whether they felt that all non-contact activities taught in physical education should be co-educational. A favorable attitude to this statement was revealed when 35.7 percent of the respondents strongly agreed and 38.1 percent agreed. Only 9.5 percent of the respondents were undecided while 14.3 percent disagreed and 2.4 percent strongly disagreed. The mean (\bar{x}) response was computed to be 3.9 which indicated, in general, the respondents agreed with the implementation of co-educational physical education where non-contact activities are involved. Asked which courses they felt should remain segregated, the respondents cited football, basketball, wrestling, and rugby chief among those activities which they felt should remain non-coeducational (see Table 4). Additional statistical calculations can be found in Appendix C (see Table 5, page 81).

Co-ed P.E. will have a positive impact on boys. The mean response to this statement was 3.1 which indicated an average response of undecided, but a closer inspection of the frequency of responses revealed 16.7 percent of the respondents in strong agreement, 28.6 percent in agreement, 19 percent undecided, 19 percent in disagreement, and a final 14.3 percent in strong disagree-

Table 4

Results of Statement #1 in Section II
(P.E. Activities Should Be Co-ed
When The Activity Taught
is Non-Contact)

Activity	N	Percent agree	Percent disagree
Wrestling	42	21.4	78.6
Rugby	42	30.9	69.1
Football (Flag or Touch)	42	33.3	66.7
Basketball	42	52.4	47.6
Field Hockey	42	61.9	38.1
Lacrosse	42	61.9	38.1
Soccer	42	66.7	33.3
Water Polo	42	66.7	33.3
Martial Arts/Self Defense	42	69.0	31.0
Weight Training	42	73.8	26.2
Handball	42	85.7	14.3
Softball	42	88.1	11.9
Gymnastics/Tumbling	42	90.5	9.5
Lifesaving	42	92.9	7.1
Track & Field	42	92.9	7.1
Fencing	42	95.2	4.8
Raquetball	42	95.2	4.8
Volleyball	42	97.6	2.4
Archery	42	100	0
Badminton	42	100	0
Bowling	42	100	0
Dance	42	100	0
Golf	42	100	0
Scuba	42	100	0
Swimming	42	100	0
Tennis	42	100	0
Yoga	42	100	0

ment with the proposed statement. Consequently it would be misleading to assume that the average respondent was undecided. Those respondents that were in agreement cited social environment as the most beneficial aspect of co-educational physical education because it allowed boys and girls to interact during recreational activities. Also, one respondent explained that as a result of co-educational physical education, the boys were acquiring a new, improved image of girls in an athletic setting. However, the reasons for doubting the positive effects of co-educational physical education upon boys focused primarily on the de-emphasis of a competitive atmosphere. A male respondent claimed his male students were "...bored because of the lack of ability and interest of the girls..." Additional statistical calculations can be found in Appendix C (see Table 5, page 81).

Co-ed P.E. will have a positive impact on girls.

Interestingly, many of the respondents were unsure of their feelings towards this statement indicated by a mean response of 3.2, with 28.6 percent undecided. The remaining responses revealed 19 percent of the respondents in strong agreement, 23.8 percent in agreement, 19 percent in disagreement and 7 percent strongly disagreeing that co-educational physical education would have a positive impact on girls. One respondent summed up the feelings of many by stating, "Socially, it can be excellent... in general, only the advanced girls can, and will compete

with boys." Other comments included, "They will learn the skills... to play sports that were formerly played or participated in primarily by males," and another respondent stated that co-educational physical education, "could give girls a better self-image." Additional statistical calculations can be found in Appendix C (see Table 5, page 81).

Co-ed P.E. will have a negative impact on boys.

The responses showed that only 9.5 percent strongly agreed with this statement, while 23.8 percent were in agreement, another 23.8 percent were undecided, and still another 23.8 percent were in disagreement, and finally 16.7 percent of the respondents were in strong disagreement. The distribution of responses revealed a mean of 2.9 which indicated a general feeling of uncertainty.

A variety of explanations were expressed describing the negative effects of co-educational physical education upon boys. One teacher expressed his concern that co-educational physical education did not allow the boys to "...excel to their potential." Another possible problem cited was, "In some activities it will restrict their competitive progress." A respondent who considered the overall co-educational physical education program as positive, identified one negative aspect as it might apply to boys. She felt that some male students might be intimidated by the presence of female students, and by girls who were better athletes. But, as other teachers commented, the opposite was just as likely to occur,

referring to the affect of intimidation upon girls. Additional statistical calculations can be found in Appendix C (see Table 5, page 81).

Co-ed P.E. will have a negative impact on girls.

Thirty-eight percent of the respondents were undecided as to whether co-educational physical education would have a negative effect upon girls. Those respondents who were in strong agreement with this statement represented 4.8 percent of the total group, while 16.7 percent were in agreement, 26.2 percent were in disagreement, and 11.9 percent were in strong disagreement. The mean response was 2.7. Many respondents felt that a co-educational setting might embarrass the girls, which would cause a decrease in their participation and athletic endeavors. Additional statistical calculations can be found in Appendix C (see Table 5, page 81).

Co-ed P.E. will help to improve your overall P.E.

program. The responses offered to this statement revealed that many of the respondents felt that co-educational physical educational would help to improve their physical education program indicated by a mean response of 3.1 with 26 percent in strong agreement and another 19 percent in agreement. However a similar proportion of the sample group indicated their doubts with 14.3 percent in disagreement and 19 percent in strong disagreement. The remaining respondents representing 19 percent of the sample population were undecided. A positive reaction towards the

implementation of co-educational physical education was expressed by one respondent when she described the overall improvements as, "Equal sharing of facilities, men and women instructors, and... a wider variety of course offerings." But, a major concern expressed by another respondent was that, "... instead of instructional P.E., we have gone to recreation." One respondent, seemingly exasperated by bureaucracy felt that an improved program would not result, "...unless we get some form of assistance from our Proposition 13 ravaged administration. If the Federal Government wants Title IX, maybe they should fund our needs, e.g. exercise mats, archery equipment, and tennis facilities--once promised, then taken away. When team facilities are offered, that's what you get." Additional statistical calculations can be found in Appendix C (see Table 5, page 8).

The conduct of your students will be affected by the presence of the opposite sex in class. The statement dealing with classroom behavior solicited a variety of responses. Most respondents generally felt positive about the effect of the presence of the opposite sex in their class indicated by a mean of 3.5. Sixteen percent of the respondents were in strong agreement with this statement and an additional 47.6 percent registered a response of agreement. Fourteen percent of the respondents were undecided and 14.3 percent were in disagreement, but only a small percent, 4.8, were in strong disagreement with this

statement. When asked to describe observed behavior changes, responses varied. A positive change, cited by more than one respondent, was that in mixed company both boys and girls used more refined language. Also, both groups exhibited better classroom behavior overall. "Boys act like gentlemen... Girls act like ladies," commented one respondent. Negatively, one teacher identified behavioral changes by stating that there was, "More horseplay with each sex flirting or trying to impress the other." Additional statistical calculations can be found in Appendix C (see Table 5, page 81).

Co-ed P.E. will solve some problems in your P.E. program. A number of the respondents agreed that co-educational physical education could be the solution to some problems existent in their physical education program, with 14.3 percent of the respondents in strong agreement and 31 percent in agreement. However, nearly the same number of respondents did not agree, with 19 percent in disagreement and an additional 19 percent in strong disagreement. Sixteen percent of the respondents were undecided. A mean of 3.0 further revealed the disparity among respondents regarding this statement indicating an average response of undecided. Comments expressed were both positive and negative. Some respondents considered co-educational physical education a problem-solver in that it would be possible to offer a wider variety of courses with better instruction, "...since teachers can... be

assigned to their areas of expertise." Other respondents, however, felt that a lack of proper facilities would make it difficult to set up a successful co-educational physical education program. Additional statistical calculations can be found in Appendix C (see Table 5, page 81).

Co-ed P.E. will cause some problems in your P.E. program. While the respondents questioned were somewhat divided concerning the ability of co-educational physical education to solve problems, they were much more sure that it was the cause of problems. Clearly the majority of the sample population sided with this statement as indicated by 23.8 percent of the respondents in strong agreement and 45.2 percent in agreement, accounting for a total of 69 percent with a mean of 3.6. The remainder of the group consisted of the 7.1 percent undecided, 19.0 percent in disagreement and the smallest portion, 4.8 percent, in strong disagreement. Supervision was cited most often as the greatest inconvenience resulting from co-educational physical education. Each teacher is in charge of his or her class, and that duty includes the time before and after the actual activity period. Many respondents explained that it was impossible for them to perform their locker room duties with half their class in one locker room, while the other half of the class was in a different room. This problem had, apparently, not yet been remedied in many of the schools surveyed as

evidenced by the responses. In addition, scheduling of classes was considered by many as a problem, and lack of competitive standards was also cited as a problem caused by the advent of co-educational physical education. Additional statistical calculations can be found in Appendix C (see Table 5, page 81).

Section III: Teaching Co-Ed Physical Education

The final section of the questionnaire was concerned with the teaching of co-educational physical education. At the time the questionnaire was distributed (September, 1978) many teachers had little or no experience teaching co-educational activities. Many of their responses were based upon their perceptions of co-educational physical education. The choice of responses in this section were either YES or NO. A complete breakdown of the responses to all items in this section along with additional statistical calculations can be found in Appendix D (see Table 6, page 83).

Some specific problems could not result from a man teaching a co-ed P.E. class. The respondents were nearly evenly divided over this statement with 47.6 percent responding in the affirmative and 52.4 percent responding in the negative. Most respondents cited locker room supervision as an immediately identifiable problem. Many of the additional objections came from the female faction. They felt that young girls have many more unique problems than boys, and could relate to women better. Referring to

a girl's menstrual cycle, many female respondents were concerned that a girl might be embarrassed to discuss her problem with a male teacher. Furthermore, some respondents implied that male teachers were not sensitive enough to handle the problems of their female students. Additionally, both male and female respondents expressed feelings of concern over the problem of teacher/student physical contact. Both groups of respondents acknowledged this as a potentially explosive and career-damaging aspect of co-educational physical education. Additional statistical calculations can be found in Appendix D (see Table 6 page 83).

Some specific problems could result from a woman teaching a co-ed P.E. class. Fifty-five percent of the respondents perceived problems resulting from a female teaching a co-educational physical education class, while the remaining 45 percent did not. Reasons for this response were offered by way of brief explanations. One female respondent described, "... a fight... among boys," as a potential problem for a woman teaching a sexually integrated class. Other teachers felt a woman would not have the necessary control to discipline her male students. One woman agreed when she stated, "... no way will we attempt to break up a fight." Additional statistical calculations can be found in Appendix D (see Table 6 page 83).

A teaching team of a man and a woman is a good arrangement for a co-ed P.E. class. Seventy-five percent of the respondents agreed with the concept of team teaching where one male and one female would be assigned to teach a co-educational physical education class. The remaining 25 percent responded in the negative to this item. Those in favor of team teaching felt that a co-educational class would be able to use the adults as role models and thus, make the transition and subsequent adjustment more easily. Furthermore, previous teaching problems cited might be alleviated with a team. However, several drawbacks were suggested, by those respondents not in favor of team teaching. They included the lack of facilities to accommodate a class twice that of the normal size. Also, using two teachers to teach one class would limit the number of course offerings available to the students. Additional statistical calculations can be found in Appendix D (see Table 6, page 83).

In your opinion are there program activities men should not teach? A total of 75 percent of the respondents felt that men should be allowed to teach all co-educational sport activities. Of the remaining 25 percent, dance was cited most often as an activity not suited to male instruction. Additional statistical calculations can be found in Appendix D (see Table 6, page 83).

In your opinion are there program activities women

should not teach? The responses to this question were similar to the preceding item. Sixty-seven percent of the respondents felt women were competent to teach all co-educational physical education activities. However, among the 33 percent who responded in the negative, those activities that raised some doubt as to a woman's teaching ability included football, wrestling, weight training, rugby, and martial arts/self defense. Additional statistical calculations can be found in Appendix D, (see Table 6, page 83).

Discussion of Hypotheses

As discussed in Chapter 1, four hypotheses were proposed for this study. The results of the questionnaire indicated certain attitudes and opinions in regard to each hypothesis. The following is a discussion of each hypothesis based upon the findings of the questionnaire.

Physical education teachers generally maintain a positive attitude towards the implementation of co-educational physical education. The results of the questionnaire revealed a tendency by physical education teachers to view co-educational physical education in a positive light.

It was determined that a total of 74 percent of the respondents favored co-educational physical education classes when the activity taught was non-contact as compared to the remaining 26 percent of the respondents who were either undecided or in disagreement. In addition, 45.3

percent of the respondents perceived co-educational activities as having a positive impact on boys, with 19 percent undecided and 33 percent in disagreement. Forty-two percent of the respondents felt that a co-educational physical education class would also have a positive impact on girls, while 28.6 percent were undecided and 26 percent did not agree with this questionnaire item.

When asked if they felt co-educational physical education would help solve any problems in their physical education programs, 44 percent were in agreement, 17 percent undecided, and 38 percent of the respondents in disagreement. The mean response of all items pertaining to this hypothesis was 3.4 indicating a tendency towards the positive. Table 5 containing this information can be found in Appendix C, page 81.

There will be no significant difference between junior high (or middle school) and senior high school physical education teachers' attitudes towards the implementation of co-educational physical education. In comparing the results of the questionnaires obtained from thirteen middle school or junior high school respondents and twenty nine senior high school respondents no statistical significant differences were discovered. Chi square calculations were performed upon each questionnaire item in Sections II and III. None were found to be significant at the .05 level (See Table 7). These results indicated no significant differences in attitude towards

Table 7
Comparison Between Middle School/Jr. High School
and Sr. High School P.E. Teachers*

Item	\bar{x}	S.D.	Degrees of Freedom	Chi Square	Significance
1. P.E. classes should be co-ed when the activity taught is non-contact.	3.9	1.1	4	4.93 ^a	.29
2. Co-ed P.E. will have a positive impact on boys.	3.0	1.4	4	5.03 ^a	.29
3. Co-ed P.E. will have a positive impact on girls.	3.2	1.3	4	6.74 ^a	.15
4. Co-ed P.E. will have a negative impact on boys.	2.8	1.3	4	3.80 ^a	.44
5. Co-ed P.E. will have a negative impact on girls.	2.7	1.1	4	3.64 ^a	.46
6. Co-ed P.E. will help to improve your overall P.E. program	3.1	1.5	4	1.68 ^a	.80
7. The conduct of your students will be affected by the presence of the opposite sex in class.	3.5	1.2	4	6.38 ^a	.18

Comparison Between Middle School/Jr. High School
and Sr. High School P.E. Teachers*

Item	\bar{x}	S.D.	Degrees of Freedom	Chi Square	Significance
8. Co-ed P.E. will solve some problems in your P.E. program.	3.0	1.4	4	4.54 ^a	.34
9. Co-ed P.E. will cause some problems in your P.E. program.	3.6	1.2	4	2.82 ^a	.59
10. Some specific problems could result from a <u>man</u> teaching a co-ed P.E. class.	1.5	0.5	1	0.04 ^b	.84
11. Some specific problems could result from a <u>woman</u> teaching a co-ed P.E. class.	1.5	0.5	1	0.17 ^b	.68
12. A teaching team of a man and a woman is a good arrangement for a co-ed P.E. class.	1.2	0.5	1	0.28 ^b	.60
13. In your opinion, are there some activities <u>men</u> should not teach?	1.8	0.6	1	0.07 ^b	.80
14. In your opinion, are there some activities <u>women</u> should not teach?	1.71	0.6	1	0.09 ^b	.77

Comparison Between Middle School/Jr. High School
and Sr. High School P.E. Teachers*

-
- * Correlation significant at .05 level
 - a Significant correlation with 4 degrees of freedom: 9.488
 - b Significant correlation with 1 degree of freedom: 3.841

co-educational physical education by middle school, junior high school or senior high school teachers.

There will be no significant difference between male and female physical education teachers' attitudes towards the implementation of co-educational physical education. The questionnaires were separated according to sex in order to make a comparison between results solicited from the twenty-five male and seventeen female respondents. Again a chi square calculation was employed and the results revealed there were no statistical differences at the .05 level of significance indicating that sex had little bearing on the attitudes obtained in this study. (see Table 8).

There will be no significant difference between physical education teachers with varying years of experience in regard to their attitudes towards the implementation of co-educational physical education.

The respondents' questionnaires were separated into three groups depending on years of teaching experience. The first group contained questionnaires completed by eleven respondents with 1 to 10 years of teaching experience. The second group was comprised of twenty respondents with 11 to 20 years of teaching experience. The third and final group, consisted of eleven respondents with more than 20 years of teaching experience. Chi square calculations revealed no significant statistical differences at the .05 level (see Table 9). This evidence indicated few differences

Table 8
Comparison Between Male and Female
P.E. Teachers*

Item	\bar{x}	S.D.	Degrees of Freedom	Chi Square	Significance
1. P.E. classes should be co-ed when the activity taught is non-contact.	3.9	1.1	4	3.33 ^a	.50
2. Co-ed P.E. will have a positive impact on boys.	3.1	1.4	4	5.59 ^a	.23
3. Co-ed P.E. will have a positive impact on girls.	3.2	1.3	4	6.42 ^a	.17
4. Co-ed P.E. will have a negative impact on boys.	2.8	1.3	4	4.07 ^a	.40
5. Co-ed P.E. will have a negative impact on girls.	2.7	1.1	4	6.40 ^a	.17
6. Co-ed P.E. will help to improve your overall P.E. program.	3.1	1.5	4	1.09 ^a	.90
7. The conduct of your students will be affected by the presence of the opposite sex in class.	3.5	1.2	4	3.73 ^a	.44

Comparison Between Male and Female
P.E. Teachers*

Item	\bar{x}	S.D.	Degrees of Freedom	Chi Square	Significance
8. Co-ed P.E. will solve some problems in your P.E. program.	3.0	1.4	4	3.42 ^a	.50
9. Co-ed P.E. will cause some problems in your P.E. program.	3.6	1.2	4	1.30 ^a	.86
10. Some specific problems could result from a <u>man</u> teaching a co-ed P.E. class.	1.5	0.5	1	0.06 ^b	.80
11. Some specific problems could result from a <u>woman</u> teaching a co-ed P.E. class.	1.5	0.5	1	0.01 ^b	.90
12. A teaching team of a man and a woman is a good arrangement for a co-ed P.E. class.	1.2	0.5	1	0.07 ^b	.80
13. In your opinion, are there some activities <u>men</u> should not teach?	1.8	0.6	1	0.09 ^b	.76
14. In your opinion, are there some activities <u>women</u> should not teach?	1.7	0.6	1	.024 ^b	.62

Comparison Between Male and Female
P.E. Teachers*

* Correlation significant at .05 level

a- Significant correlation with 4 degrees of freedom: 9.488

b Significant correlation with 1 degree of freedom: 3.841

Table 9
Comparison Between P.E. Teachers With
1-10, 11-20 Or More Than 20 Years of Experience*

Item	\bar{x}	S.D.	Degrees of Freedom	Chi Square	Significance
1. P.E. classes should be co-ed when the activity taught is non-contact.	3.9	1.1	8	9.89 ^d	.27
2. Co-ed P.E. will have a positive impact on boys.	3.1	1.4	10	8.13 ^e	.61
3. Co-ed P.E. will have a positive impact on girls.	3.2	1.3	10	6.36 ^e	.78
4. Co-ed P.E. will have a negative impact on boys.	2.8	1.3	10	7.29 ^e	.69
5. Co-ed P.E. will have a negative impact on girls.	2.7	1.1	10	5.55 ^e	.85
6. Co-ed P.E. will help to improve your overall P.E. program.	3.1	1.5	10	4.79 ^e	.90
7. The conduct of your students will be affected by the presence of the opposite sex in class.	3.5	1.2	10	9.81 ^e	.45

Comparison Between P.E. Teachers With
1-10, 11-20 Or More Than 20 Years of Experience

Item	\bar{x}	S.D.	Degrees of Freedom	Chi Square	Significance
8. Co-ed P.E. will solve some problems in your P.E. program.	3.0	1.4	8	2.70 ^d	.95
9. Co-ed P.E. will cause some problems in your P.E. program.	3.6	1.1	8	16.3 ^d	.04*
10. Some specific problems could result from a <u>man</u> teaching a co-ed P.E. class.	1.5	0.5	2	.29 ^a	.85
11. Some specific problems could result from a <u>woman</u> teaching a co-ed P.E. class.	1.5	0.5	2	.60 ^a	.73
12. A teaching team of a man and a woman is a good arrangement for a co-ed P.E. class.	1.2	0.5	4	1.3 ^b	.85

Comparison Between P.E. Teachers with
1-10, 11-20 Or More Than 20 Years of Experience

Item	\bar{x}	S.D.	Degrees of Freedom	Chi Square	Significance
13. In your opinion, are there some activities <u>men</u> should not teach?	1.8	0.6	4	2.4 ^b	.67
14. In your opinion, are there some activities <u>women</u> should not teach?	1.7	0.6	6	4.3 ^c	.63

• Correlation significant at .05 level

a Significant correlation with 2 degrees of freedom: 5.991

b Significant correlation with 4 degrees of freedom: 9.488

c Significant correlation with 6 degrees of freedom: 12.592

d Significant correlation with 8 degrees of freedom: 15.507

e Significant correlation with 10 degrees of freedom: 18.307

in attitudes towards co-educational physical education by physical education teachers regardless of years of teaching experience.

Discussion of the Results

Up to this time research conducted in the area of co-educational physical education has been limited. In view of the lack of information currently available on this topic further discussion of some of the findings of this study seemed justified. Teachers are continually adjusting to the impact and effect of co-educational physical education. Many maintain strong feelings concerning the changes they are currently experiencing and shared them by the way of their comments on the questionnaire.

Many teachers expressed a feeling that co-educational physical education seems to have a greater impact, both positive and negative upon the male students. It was anticipated that co-educational physical education would result in a decrease in competitive standards thus resulting in a decrease in effort and interest on the part of the boys. However, from a positive standpoint, it was felt that the presence of girls would help to improve the boys' classroom behavior.

It was also felt that co-education would tend to recreationalize traditional physical education. Sexually integrated classes might lead to lower class standards by placing skilled students with unskilled, or disinterested

students with those that were more eager and enthusiastic. The end result might be that of leisure-time activities in an effort to appeal to the largest audience. But, overall co-educational physical education was viewed as an improved addition to the present curriculum. The sharing of facilities, equipment, and instructors were considered important contributions brought about by co-educational physical education.

Summary

The overall results supported all the proposed hypotheses. Evidence obtained from the questionnaires revealed no significant differences in attitude towards co-educational physical education among the populations tested. While the statistical results were insignificant, the responses and comments proved valuable in that they allowed the researcher an insight into the present attitudes and opinions of the sample group.

Chapter 5

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Summary

The primary purpose of this study was to identify and analyze the attitudes and opinions of middle school, junior high school and senior high school physical education teachers towards the implementation of co-educational physical education brought about as a result of Title IX. The data were obtained by means of a structured questionnaire, which was developed by the researcher and based upon a survey conducted by the University of Illinois, in 1975. (Selby:1977)

The revised questionnaire, with a letter of explanation, was mailed to a randomly selected group of thirty-six male and twenty-four female middle school, junior high school and senior high school physical education teachers. All teachers were employed by school districts in the Stockton area. Follow-up letters were sent to encourage a higher response rate. A total of twenty-five male teachers and seventeen female teachers completed the questionnaire, representing an overall group response of 70 percent.

The data were analyzed using the Statistical Package for the Social Sciences (SPSS). Distributional

frequencies were computed in order for each questionnaire item to be closely examined. Following examination of the distributional characteristics of each variable, the SPSS program of CROSSTABS was used to compute chi square statistics to assist in identifying any significant relationships that existed among the variables. The results were analyzed and discussed in Chapter 4. As a result of this analysis, the researcher was able to draw conclusions and offer recommendations.

Conclusions

Based upon the results of the study and limited to the population included in this study, the following conclusions seemed justified. Some of the conclusions that will be presented correspond to the hypotheses previously proposed in Chapter 1.

1. Physical education teachers generally maintain a positive attitude towards the implementation of co-educational physical education.

2. No significant difference exists in attitudes towards co-educational physical education between middle school, junior high school or senior high school physical education teachers.

3. No significant differences in attitude exists between male and female physical education teachers' concerning the issue of co-educational physical education.

4. No significant differences exist among

teachers with teaching experience less than ten years, eleven to twenty years or more than twenty years, in regard to their attitude toward the implementation of co-educational physical education.

Recommendations

As a result of the attitudes and opinions of the respondents about co-educational physical education, solicited by the questionnaire, the following recommendations are made. The recommendations offered apply to teachers of both sexes and employed at the secondary level; including middle school, junior high school, and senior high school.

Recommendations For The Physical Education Profession

1. Physical education activity classes should be sexually integrated whenever, and wherever practical.
2. Separate, but equal, activities should be offered when co-education is not feasible.
3. Physical education should include both leisure-time and traditional activities.
4. Districts should provide implementation workshops in order to prepare teachers affected by the co-educational transition.

Recommendations For Further Studies

In the course of this study, it became apparent that certain related aspects merited further research.

These included:

1. An in-depth study should be conducted focusing on the impact of Title IX at the elementary school level.
2. Further research should be initiated to supply additional evidence in order to compare results from this study with results from similar studies.
3. A similar study should be conducted in other geographical areas.

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APPENDICES

APPENDIX A
CORRESPONDENCE RELATED TO THE STUDY

August 10, 1978

University of Illinois
Department of Physical Education
Urbana/Champaign, Ill.

To whom it may concern:

I am currently a graduate student at the University of the Pacific working on my Master's thesis. The topic I have chosen to research is Title IX, with an emphasis on co-educational physical education. I recently read the article by Rosemary Selby in the December, 1977, issue of Physical Educator entitled, "What's Wrong (and Right)! With Co-Ed Physical Education Classes: Secondary School Physical Educators' Views on Title IX Implementation". Ms. Selby discussed the results of a survey conducted in 1975, by the University of Illinois dealing with the issue of co-educational physical education. I am interested in obtaining the original questionnaire employed and would appreciate if you would forward me a copy.

Thank you for your cooperation in this matter.

Sincerely,

Michele Pavin

October 2, 1978

Dear

I am presently surveying junior and senior high school physical education teachers in your area. As a graduate student in the Department of Physical Education at the University of the Pacific, I am gathering information for my thesis in the area of co-educational physical education.

The objective of this study is to obtain accurate information concerning secondary teacher attitudes towards Title IX, in general, and co-educational physical education, in particular.

Your answers will be treated in STRICTEST CONFIDENCE. The questionnaire is not coded in any way. Your answers will be used along with those of other respondents in a composite report.

It is realized that this constitutes an imposition on your time and good will, but it is hoped that you will be willing to spend approximately 20 minutes to complete and return the questionnaire in the envelope provided by OCTOBER 16, 1978.

Thank you for taking time from your busy schedule to consider this matter.

Very truly yours,



Michele H. Pavin
Investigator

S. Thomas Stubbs
Project Advisor

October 9, 1978

Dear Respondent:

Your assistance is urgently needed!

Last week you received a questionnaire concerning Title IX; co-ed physical education, in particular. The objectives of the study are to determine secondary teacher attitudes towards co-ed physical education.

This questionnaire is being sent only to physical education teachers in your area, so it is important that your responses be included in order to maintain the scientific character of the project. If you haven't already done so, please take time to complete and return the questionnaire.

If you have already returned the questionnaire, please accept my thanks for taking your valuable time.

Sincerely,

Michele H. Pavin

APPENDIX B
SURVEY INSTRUMENT USED IN THIS STUDY

QUESTIONNAIRE

The following questionnaire has been developed for the purpose of measuring the attitudes of secondary physical education teachers toward Title IX of the Educational Amendments of 1972, with particular emphasis on co-educational physic education. Your responses to this survey will remain anonymous.

Directions

1. Complete the Personal section, answering each question as accurately as possible.
2. In completing Sections II and III of the questionnaire, please read each statement carefully and respond in accordance with your own feelings and attitudes towards that statement.

SECTION I

Personal Inventory

1. Sex: _____ Male _____ Female
2. Age: _____
3. At which level do you teach P.E.?
____ Junior High or Middle School
____ Senior High School
4. Estimate the percentage of P.E. classes presently taught in your school which are co-educational:
____ 0% - 25%
____ 26% - 50%
____ 51% - 75%
____ 76% -100%
5. How many years have you taught P.E.?

6. In your opinion, has Title IX brought about much change to your P.E. program? ☐ Yes ☐ No

Please Explain:

7. In your opinion, are there some better ways by which to comply with Title IX other than the formation of co-ed P.E.? ☐ Yes ☐ No

Please explain:

SECTION II

Questions Dealing With Co-ed Physical Education

Directions: Following is a list of statements. After each is the rating scale for that statement. Circle the number that best expresses your attitude toward the statement. Several statements have room for your additional comments.

ANY FURTHER REMARKS YOU WISH TO ADD WILL BE APPRECIATED.

Thank you.

The rating scale is interpreted as follows:

- 5 - Strongly agree
- 4 - Agree
- 3 - Undecided
- 2 - Disagree
- 1 - Strongly Disagree

1. P.E. classes should be co-ed when $\frac{SA}{5}$ $\frac{A}{4}$ $\frac{U}{3}$ $\frac{D}{2}$ $\frac{SD}{1}$
the activity taught is non-contact.

In what P.E. activities do you think boys and girls should not participate together? (check those that apply)

☐ Football (flag or touch)
☐ Basketball
☐ Softball
☐ Volleyball
☐ Tennis
☐ Badminton
☐ Raquetball
☐ Handball
☐ Wrestling
☐ Weight Training
☐ Bowling
☐ Golf
☐ Martial Arts/ Self Defense
☐ (Karate, Judo, Kung Fu,
 Yoga

Other: _____

☐ Swimming
☐ Lifesaving
☐ Water Polo
☐ Scuba
☐ Soccer
☐ Archery
☐ Fencing
☐ Field Hockey
☐ Lacrosse
☐ Rugby
☐ Track & Field
☐ Gymnastics/Tumb-
 ling
☐ Dance
☐ Ballroom/Social
☐ Jazz
☐ Folk
☐ Ballet
☐ Modern

- | | <u>SA</u> | <u>A</u> | <u>U</u> | <u>D</u> | <u>SD</u> |
|--|-----------|----------|----------|----------|-----------|
| 2. Co-ed P.E. will have a positive impact on boys. | 5 | 4 | 3 | 2 | 1 |

Briefly explain:

- | | <u>SA</u> | <u>A</u> | <u>U</u> | <u>D</u> | <u>SD</u> |
|---|-----------|----------|----------|----------|-----------|
| 3. Co-ed P.E. will have a positive impact on girls. | 5 | 4 | 3 | 2 | 1 |

Briefly explain:

- | | <u>SA</u> | <u>A</u> | <u>U</u> | <u>D</u> | <u>SD</u> |
|--|-----------|----------|----------|----------|-----------|
| 4. Co-ed P.E. will have a negative impact on boys. | 5 | 4 | 3 | 2 | 1 |

Briefly explain:

	<u>SA</u>	<u>A</u>	<u>U</u>	<u>D</u>	<u>SD</u>
5. Co-ed P.E. will have a negative impact on girls.	5	4	3	2	1

Briefly explain:

	<u>SA</u>	<u>A</u>	<u>U</u>	<u>D</u>	<u>SD</u>
6. Co-ed P.E. will help to improve your overall P.E. program.	5	4	3	2	1

Briefly explain:

- | | <u>SA</u> | <u>A</u> | <u>U</u> | <u>D</u> | <u>SD</u> |
|--|-----------|----------|----------|----------|-----------|
| 7. The conduct of your students
will be affected by the presence
of the opposite sex in class. | 5 | 4 | 3 | 2 | 1 |

What, if any, changes in behavior do you foresee?

- | | <u>SA</u> | <u>A</u> | <u>U</u> | <u>D</u> | <u>SD</u> |
|---|-----------|----------|----------|----------|-----------|
| 8. Co-ed P.E. will solve some
problems in your P.E. program. | 5 | 4 | 3 | 2 | 1 |

Briefly explain:

9. Co-ed P.E. will cause some problems in your P.E. program.

<u>SA</u>	<u>A</u>	<u>U</u>	<u>D</u>	<u>SD</u>
5	4	3	2	1

Briefly explain:

SECTION IIIQuestions Dealing With
Teaching Co-ed Physical
Education.

1. Some specific problems could result from a man teaching a co-ed P.E. class. ☐ Yes ☐ No

Briefly explain:

2. Some specific problems could result from a woman teaching a co-ed P.E. class. ☐ Yes ☐ No

Briefly explain:

3. A teaching team of a man and a woman is a good arrangement for a co-ed P.E. class.

_____ Yes

_____ No

Why or why not?

4. In your opinion, are there some activities men should not teach?

_____ Yes

_____ No

If you answered yes to the above statement, check those activities you feel apply:

_____ Football (flag or touch)
 _____ Basketball
 _____ Softball
 _____ Volleyball
 _____ Tennis
 _____ Badminton
 _____ Raquetball
 _____ Handball
 _____ Wrestling
 _____ Weight Training
 _____ Bowling
 _____ Golf
 _____ Track & Field
 _____ Gymnastics/Tumbling
 _____ Martial Arts/Self Defense
 (Karate, Judo, Kung Fu
 Tai Chi, Aikido, etc.
 _____ Yoga

_____ Swimming
 _____ Lifesaving
 _____ Water Polo
 _____ Scuba
 _____ Soccer
 _____ Archery
 _____ Fencing
 _____ Field Hockey
 _____ LaCrosse
 _____ Rugby
 Dance:
 _____ Ballroom/Social
 _____ Folk
 _____ Ballet
 _____ Jazz
 _____ Modern
 Other: _____

5. In your opinion, are there some activities women should not teach?

_____ Yes _____ No

If you answered yes to the above statement, check those activities you feel apply:

_____ Football (flag or touch)
 _____ Basketball
 _____ Softball
 _____ Volleyball
 _____ Tennis
 _____ Badminton
 _____ Raquetball
 _____ Handball
 _____ Wrestling
 _____ Weight Training
 _____ Bowling
 _____ Golf
 _____ Track & Field
 _____ Gymnastics/Tumbling
 _____ Martial Arts/Self Defense
 (Karate, Judeo, Kung Fu,
 Tai Chi, Aikido, etc.)
 _____ Yoga

_____ Swimming
 _____ Lifesaving
 _____ Water Polo
 _____ Soccer
 _____ Scuba
 _____ Archery
 _____ Fencing
 _____ Field Hockey
 _____ Lacrosse
 _____ Rugby
 Dance:
 _____ Ballroom/Social
 _____ Jazz
 _____ Folk
 _____ Ballet
 _____ Modern
 Other: _____

APPENDIX C
STATISTICAL BREAKDOWN OF
RESPONSES TO SECTION II

Table 5
Responses to Section II

Statement	(5) Strongly Agree		(4) Agree		(3) Undecided		(2) Disagree		(1) Strongly Disagree		\bar{x}	S.D.
	R	P	R	P	R	P	R	P	R	P		
1	15	35.7	16	38.1	4	9.5	6	14.3	1	2.4	3.9	1.1
2	7	16.7	12	28.6	8	19.0	8	19.0	6	14.3	3.1	1.4
3	8	19.0	10	23.8	12	28.6	8	19.0	3	7.1	3.2	1.3
4	4	9.5	10	23.8	10	23.8	10	23.8	7	16.7	2.9	1.3
5	2	4.8	7	16.7	16	38.1	11	26.2	5	11.9	2.7	1.1
6	11	26.2	8	19.0	8	19.0	6	14.3	8	19.0	3.1	1.5
7	7	16.7	20	47.6	6	14.3	6	14.3	2	4.8	3.5	1.2
8	6	14.3	13	31.0	7	16.7	8	19.0	8	19.0	3.0	1.4
9	10	23.8	19	45.2	3	7.1	8	19.0	2	4.8	3.6	1.2

R = Number of respondents.

P = Percentage of respondents.

APPENDIX D
STATISTICAL BREAKDOWN OF
RESPONSES TO SECTION III

Table 6
Responses to Section III

Statement #	(1) Yes		(2) No		\bar{x}	S.D.
	# of resp.	%	# of resp.	%		
1	20	47.6	22	52.4	1.5	0.5
2	23	54.8	19	45.2	1.5	0.5
3	31	73.8	10	23.8	1.2	0.4
4	10	23.8	31	73.8	1.8	0.4
5	12	28.6	28	66.7	1.7	0.5