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GEADELMANN, PATRICIA LOU  
SEX EQUALITY IN PHYSICAL EDUCATION PROGRAMS  
OF SELECTED NCA ACCREDITED IOWA HIGH SCHOOLS.

THE UNIVERSITY OF NORTH CAROLINA AT  
GREENSBORO, ED.D., 1978

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SEX EQUALITY IN PHYSICAL EDUCATION PROGRAMS  
OF SELECTED NCA ACCREDITED  
IOWA HIGH SCHOOLS

by

Patricia L. Gadelmann

A Dissertation Submitted to  
the Faculty of the Graduate School at  
The University of North Carolina at Greensboro  
in Partial Fulfillment  
of the Requirements for the Degree  
Doctor of Education

Greensboro  
1978

Approved by

*Margaret A. Mordy*  
Dissertation Adviser

APPROVAL PAGE

This dissertation has been approved by the following committee of the Faculty of the Graduate School at the University of North Carolina at Greensboro.

Dissertation  
Adviser

Margaret A. Mordy

Committee Members

Paul Berlin

Cecil Ulmer

Joseph E. Bryson

October 9, 1978  
Date of Acceptance by Committee

October 9, 1978  
Date of Final Oral Examination

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The purposes of this study were to:

1. Determine the extent of implementation of the Title IX Regulations of the Education Amendments of 1972 in the physical education programs of selected North Central Association accredited high schools in Iowa.
2. Explore the perceptions held of the above programs by principals, physical education teachers, and students, and
3. Examine (1) and (2) above in light of their implications for the development of physical education programs which provide for sex equality.

The subjects for the study were twelve Iowa high schools accredited by the North Central Association within a 100-mile radius of Cedar Falls, Iowa. The schools were drawn randomly to create a proportionate sample of four large schools, four middle-size schools, and four small schools.

Two techniques were used in the collection of data: a focused interview with the principals and physical education teachers and a questionnaire with the students. The specific question content was based on material from the Title IX Regulations, the comments submitted to HEW about the Regulations, and related literature.

The interviews took approximately 45 minutes per person and were conducted in each school with the principal, the head of the physical education department, and one other member of the physical education department who was the opposite sex of the head. The interviews were taped with permission and transcribed later by the investigator. Anonymity was guaranteed by individual and by school.

A modification of a questionnaire developed by Geadelmann (1977) was used with ten percent of the students in grades 10-12 of each school. Questions which paralleled those in the interviews were

included, as well as questions directed to student viewpoints. Responses were recorded on an IBM answer sheet as well as written out on the back of the sheet.

Responses were analyzed and used to categorize schools into three levels of compliance with the Title IX Regulations. Three schools were found to be in full compliance; seven in partial compliance; and two in noncompliance. Within each compliance level the data were examined according to the roles of the individuals, the sex of the individuals, and the sizes of the schools. The questionnaire data were analyzed by a SPSS computer program which yielded percentages, frequency distributions, and cross tabulations with chi square. An alpha level of .05 was established to determine significance.

The major areas of noncompliance were in conducting separate sex classes for selected activities with differential course offerings for boys and girls and in treating students differently in rules and regulations on the basis of sex. On the whole, the large schools were in compliance to a greater degree than the other groups. There was no relationship between compliance level and socioeconomic level.

Reactions of the individuals were largely positive, with those from the full compliance schools being the most positive. Males and females differed with respect to conduct of programs and feelings about the programs. The value of coeducational programs identified most often was the improvement of social relationships. Students perceived that teachers gave unequal treatment by sex. The findings have implications for the future with respect to curriculum planning, professional preparation, and the promotion of sex equality.

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CHAPTER I  
INTRODUCTION

Dear God,

Are boys better than girls? I know you are one,  
so please try to be fair.

Love,

Sylvia

Sylvia's letter to God illustrates a dilemma confronting society today surrounding the concept of fairness, a dilemma on two fronts: (a) the problems surrounding language and the use of generic forms of words and (b) the problems of stereotypes and differential treatment of boys and girls. This study does not attempt to resolve Sylvia's problem regarding the gender of God, but it does examine the inequities in treatment of boys and girls today in one specific sphere: high school physical education programs.

"Please try to be fair." As a profession that has dealt throughout history in a realm of games and fair play, physical education is called today to reexamine its application of fairness in the broadest sense. A review of the rules of the past clearly reveals that the rules have been dual in nature: one set for boys and one set for girls. This duality has been reflected in separate-sex physical education classes with separate-sex teachers, separate-sex curriculum content, separate-sex achievement expectations, and separate-sex



behavior expectations. The programs have been separate, different, and unequal.

Although some schools in recent years united their classes and curriculums, the majority remained separate. It was thus that physical education was largely affected by a federal law enacted in 1972, Title IX of the Education Amendments of 1972 (P.L. 92-318). Title IX was aimed at eliminating sex discrimination in education and read in part:

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....

The Regulations interpreting this law were approved on July 21, 1975, and the final deadline for compliance with the Regulations by secondary and postsecondary institutions was set for July 21, 1978. The Regulations specifically prohibit classes determined by sex with the sole exception identified with respect to participation in contact sports. Further, the Regulations require that all courses be open to all students, and that the treatment of the students within the classes be equal.

This mandate has necessitated a change in many physical education programs throughout the country, both in content and in philosophy. This study attempted to examine a selected group of high schools and the responses of their principals, physical education teachers, and students to the mandates of Title IX.

### Statement of the Problem

The purposes of this study were to:

1. Determine the extent of implementation of the Title IX Regulations of the Education Amendments of 1972 in the physical education programs of selected North Central Association accredited high schools in Iowa.
2. Explore the perceptions held of the above programs by principals, physical education teachers, and students, and
3. Examine (1) and (2) above in light of their implications for the development of physical education programs which provide for sex-equality.

### Definition of Terms

The following meanings were specified for interpretation purposes in this study:

Coeducational - setting in which both sexes participate together in class.

Comparable - having characteristics in common.

Equality - fairness, impartiality.

Focused Interview - interview in which (a) respondents are known to be involved in a particular situation, (b) the investigator has analyzed the situation and has a set of hypotheses concerning the consequences of the situation for those involved, (c) an interview guide is set forth with major areas of inquiry, and (d) the focus is on the subjective experiences of the persons in the situation in order to ascertain their definitions of the situation (Merton, Fiske, and Kendall, 1956, p. 3).

Full Compliance - in accordance with all of the sections of the Title IX Regulations of the Education Amendments of 1972 which relate to physical education programs.

Noncompliance - failing to implement the Title IX Regulations of the Education Amendments of 1972 in the physical education program.

Partial Compliance - meeting only a portion of the Title IX Regulations of the Education Amendments of 1972 which relate to the physical education program.

Physical Education Programs - instructional classes which meet during the school day, not to include health, intramurals, or athletics.

Sex Equality - condition of nondiscrimination on the basis of sex, no disparity in treatment of persons by sex.

Sex-Integrated - setting in which students of both sexes are engaged together.

Sex-Segregated - setting in which students are separated by sex, even though they may be in a common area.

#### Assumptions Underlying the Research

The following assumptions underlie this research and, therefore, were not investigated as a part of the study:

1. All respondents were honest and open in their responses.
2. The investigator was able to employ consistency in interviewing so as to limit bias.
3. Interview and questionnaire content were parallel to allow comparisons by groups.

#### Limitations and Scope of the Research

The study was limited by the pre-established boundaries delineated below.

1. The following characteristics of the sample limited the generalizability of the results:
  - a. The size of the sample was limited to twelve schools.
  - b. The geographical location of the sample was limited to schools within a 100-mile radius of Cedar Falls, Iowa.
  - c. The sample was limited to high schools accredited by the North Central Association.

2. The use of the interview as a technique had the following limitations:
  - a. Some individuals are inhibited in their verbal expression.
  - b. Open-ended questions allow great latitude in responses.
  - c. Personality influences of individuals can affect standardization.
3. The sampling of the student population was not random.
4. Data were collected by two techniques. The interview was used with principals and teachers. A questionnaire was used with students. One common comparison was made with the results, however.
5. The scope of the study was limited to an investigation of the sex equality in physical education classes. Health, intramurals, interscholastic athletics, and other extra-curricular activities were excluded.

#### Significance of the Study

This study of sex equality in high school physical education programs is timely, relevant, and heuristic. Sex equality is a major concern today in all facets of life in our society. This concern is reflected in the movement for the ratification of the Equal Rights Amendment, the growth of women in the work force in general and in nontraditional jobs in particular, the increased number of court suits based on sex discrimination, and the frequency with which the media now highlight women and their surrounding quests for equality. Further, this study is being done in the year in which compliance with Title IX by high schools is mandated.

This study is relevant because across the country in many specific places, Title IX in general, and coeducational physical

education in particular, have not been received or implemented with enthusiasm. A study by Grebe (1974) of sex discrimination in Iowa school districts reported that coeducational classes were being offered less than five percent of the time. Studies by Patton (1977) in Illinois, Saidak (1976) in Tennessee, and Graham (1975) in Massachusetts all revealed deficiencies in physical education programs in meeting nondiscrimination regulations.

Physical educators typically have not paid much attention to the role of the principal in curriculum development. A study by Jensen (1975), however, pointed out significant differences between and among the importance ratings of physical education programs by physical education teachers, teacher educators, and principals. Further analysis pointed to the principals as responding most differently in terms of program purpose and program implementation.

The knowledge of administrators about the Title IX Regulations and the commitment of administrators to effect change to comply fully with the letter and the spirit of the law can be questioned on the basis of the results of studies by Patton (1977), McDaniel (1976), and McClure (1973). Further, questions can be raised about the knowledge and commitment of physical educators to sex equality in their programs as evidenced by studies by Graham (1975), Saidak (1976), and Grebe (1974). Allen (1977) found that employee position (superintendent, principal, counselor, support service staff, teacher) was a significant factor in regard to perceptions of sex discrimination in the school district. Very little investigation has been directed

at the feelings or beliefs of the students regarding sex equality in physical education.

There are very real concerns among administrators, physical educators, and students about the effects of coeducational physical education programs. Individuals at the local school district level, to a large extent, lack the support, confidence, skills, and tools necessary for the effective implementation of programs which promote sex equality. Direct inquiry of those involved with the programs has the potential to provide insight into the progress, the problems, and the perceptions surrounding the implementation of Title IX in physical education programs. A synthesis of these responses obtained in the present study will hopefully contribute to the delineation of directions for future program development which promotes sex equality.

CHAPTER II  
REVIEW OF RELATED LITERATURE

Title IX

Historical Overview

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....

Those thirty-seven words comprise P.L. 92-318, more commonly known as Title IX of the Education Amendments of 1972. Further, they represent the source of what some have said to be one of the greatest furors in the world of education in recent times. Those thirty-seven words were so loaded with implications for change that it took the Department of Health, Education, and Welfare more than three years to write the set of regulations to interpret the law. During those three years, HEW went to great lengths to ensure public participation in the controversial drafting stages (Department of HEW). The Department conferred regularly with representatives of various educational groups and women's organizations. Memoranda were sent to all school officials in August, 1972, and February, 1973. Representatives from over 50 national organizations were invited to Washington, D.C., for three days in August, 1972, for purposes of enlisting ideas for the forthcoming regulations. In addition, representatives of the Department participated in a large number of conferences sponsored by

education and women's groups and discussed proposals with members of Congress.

The Proposed Regulations were published in the Federal Register on June 20, 1974, with an extended comment period to October 15, 1974. Between June 24, 1974, and August 2, 1974, briefings were held in twelve cities across the country to "encourage broad public interest and comment" according to then Secretary of HEW Caspar Weinberger (Department of HEW). Over 3,500 people attended these briefings which resulted in over 175 newspaper articles and more than 80 broadcast interviews. Department representatives responded to over 912 different questions at the briefings (Department of HEW).

The comment period yielded almost 10,000 responses, all of which were reviewed and indexed by a special task force, which later developed policy option papers based on legal alternatives. Review of the comments resulted in major modifications in 30 of the 61 sections of the Regulations (Department of HEW). On February 28, 1975, the revised Regulations were approved by the Department and submitted to President Gerald R. Ford for approval. The President signed the Regulations on May 27, 1975, and the Regulations were then published in the June 4, 1975, Federal Register, subject to a 45-day review period by Congress.

The foregoing saga represents only the three-year history of HEW's activities with writing the regulations for a law that some observers have said was originally passed "...with a minimum of thought and a few laughs on the floor" (Gregory, 1977). Legislative



history shows that there was not an intent in and of itself to pass a Title IX of the Education Amendments. In 1970 Congresswoman Edith Green, then chairman of the House Special Subcommittee on Education of the Committee on Education and Labor, held hearings on Discrimination Against Women (U.S. House of Representatives, 1970). At that time her purpose was to amend Title VI of the Civil Rights Act to include "sex."

The hearings generated hundreds of pages of testimony documenting discrimination against women in all phases of life. Rep. Green set the stage for the hearings with these opening remarks:

Many of us would like to think of educational institutions as being far from the maddening crowd, where fair play is the rule of the game and everyone, including women, gets a fair roll of the dice. Let us not deceive ourselves--our educational institutions have proven to be no bastions of democracy (U.S. House of Representatives, p. 2).

... during the next several days I hope that the various kinds of discrimination against women in our society will be discussed and will be fully documented and that this can be made available to the men who run the world (U.S. House of Representatives, p. 4).

The following comments by Rep. Shirley Chisolm summarized the need for legal action:

The prejudice against women has gone unnoticed by most persons precisely because it is so pervasive and thoroughgoing that it seems to us to be normal (U.S. House of Representatives, 1970, p. 618).

Sex is not, any more than religion or race, a valid basis for discrimination. Women are individuals, just like men, or blacks, or Polish Americans. To consider them as a homogeneous group is manifestly unjust. It is prejudging each individual in the group, each woman, which as you know is the origin of the word prejudice (U.S. House of Representatives, 1970, p. 620).

Colleagues of Congresswoman Green raised several concerns about the proposal to amend Title VI, fearing that this would open all of Title VI for further amendments, a move that could have generated both hostility and problems at the time. A new statute was therefore written by the Green committee, using the basic language and format of Title VI, but substituting the word "sex" for "race." This was then attached to the Education Amendments of 1972. Gregory (1977) described the ensuing treatment of the bill as follows:

If Title VI came in with a bang, Title IX came in with a whimper. It was secluded between a busing provision prohibiting transportation of students to achieve racial balance (a much debated provision) and a provision granting assistance to desegregating school districts, also a provision close to the hearts of many members of Congress.

The legislative history of Title IX is sparse at best. The Congress did not deal with the questions which have caused the great turmoil and controversy--questions such as athletics: Are boys made of sterner stuff and therefore entitled to a greater share of the athletics pot than girls? Questions such as physical education--is it in the best interest of girls and boys to be taught P.E. together? Will this be detrimental to adolescents? Will frail girls be injured by the boys? (p. 1)

In between the period of legislation drafting and public comment, there were several attempts by various members of Congress to amend the law. Sen. John Tower, Texas, made an unsuccessful attempt to have revenue-producing sports excluded from the provisions of Title IX. Rep. James O'Hara, Michigan, introduced a bill to amend coverage of physical education and athletics. Rep. Bob Casey, Texas, also launched an unsuccessful effort to exclude several areas from Title IX by taking away HEW authority to withhold or cut off funds if an institution had single-sex physical education classes or supported honorary

organizations which discriminated on the basis of sex. Dunkle (1975) reported the action on the Casey amendment:

After a round of legislative ping pong, and under pressure from what Casey called "the heaviest lobbying I've ever seen around here," the House finally agreed on July 18-- by a 215-178 vote--to drop the Casey amendment, which originally passed in April by a 108 vote margin (253-145). This dramatic shift followed on the heels of a July 11 conference report with the House and Senate disagreeing over the Casey amendment, a July 16 212-211 House vote to retain the Casey amendment, and a July 17 65-29 Senate vote to reject it (p. 1).

In addition, Rep. O'Hara attempted to send the Title IX Regulations back to HEW because they were allegedly inconsistent with the law. O'Hara, chair of the House Subcommittee on Postsecondary Education, held two weeks of hearings (U.S. House of Representatives, Sex Discrimination Regulations, 1975) attempting to reject the Regulations because of the inclusion of provisions requiring institutions to conduct self-evaluations and to appoint an employee for compliance and grievance procedures. O'Hara further objected to the procedures for religious objections. A resolution introduced by O'Hara to return the Regulations to HEW failed to get committee approval. Other amendments were successful in exempting such groups as sororities and fraternities, Boy Scouts and Girl Scouts, and YMCA's and YWCA's from the Regulations.

The Regulations survived the 45-day review period by Congress (required by the 1974 General Education Provisions Act), and officially became effective on July 21, 1975. The Regulations allowed a one-year period for compliance by elementary schools and a three-year period for compliance by secondary and postsecondary institutions. This

extended the deadline date for full implementation to July 21, 1978, more than 6 years from original passage of the law.

### Provisions

The Regulations in their final form were concerned with three principal educational factors: admissions, treatment of students, and employment. It is within the treatment of students section that the provisions affecting physical education were placed. The basic premise is that all classes are to be open to students of both sexes. Sex-separate classes are prohibited except that in cases of participation in a contact sport activity, separation may be allowed. The specific statements read as follows:

86.34 Access to Course Offerings. A recipient shall not provide any course or otherwise carry out any of its education program or activity separately on the basis of sex, or require or refuse participation therein by any of its students on such basis, including health, physical education,....

(a) With respect to classes and activities in physical education at the elementary school level, the recipient shall comply fully with this section as expeditiously as possible, but in no event later than one year from the effective date of this regulation. With respect to physical education classes and activities at the secondary and postsecondary levels, the recipient shall comply fully with this section as expeditiously as possible but in no event later than three years from the effective date of this regulation.

(b) This section does not prohibit grouping of students in physical education classes and activities by ability as assessed by objective standards of individual performance developed and applied without regard to sex.

(c) This section does not prohibit separation of students by sex within physical education classes or activities during participation in wrestling, boxing, rugby, ice hockey, football, basketball, and other sports the major purpose of which involves bodily contact.

(d) Where use of a single standard of measuring skill or progress in a physical education class has an adverse effect

on members of one sex, the recipient shall use appropriate standards which do not have such effect (Department of HEW, 1975, p. 24141).

Other considerations delineated by the Regulations included housing facilities, counseling, financial aid, student health and insurance benefits, marital or parental status, course offerings, educational activities, and athletics. In essence, all phases of the educational program were covered with the overriding principle that there be equal opportunity for all students, that there be no discrimination on the basis of sex.

Subsequent rulings related to physical education have declared that differential uniform requirements for girls and boys were illegal (Boys' Gym Shorts, 1977, p. 2) and that though students may be separated for contact sports, those activities cannot be taught to only one sex. It was further ruled that in the cases of ability grouping, girls could not be assigned shorter distances for running track sprints than boys (HEW Issues New Set, 1977, p. 2). An additional memorandum by the Office for Civil Rights (1976) addressed the issue of separate-sex departments of physical education and athletics. Separate administrative structures were held to be legal under the Regulations, provided that there was equal opportunity for males and females within all phases of the programs. This ruling was, in part, a result of the large number of men selected to head merged departments.

Currently in question is the applicability of the employment section to faculty and staff at educational institutions. A U.S. District Court ruling in Seattle, Washington (Courts Consider Title IX,

1978) stated that only student employees at institutions which received federal funding were covered by Title IX.

### Reactions to the Physical Education Provisions

The provisions for physical education represented one of the most controversial sections of the Regulations. Of the 247 comments received about physical education, only 40 were in favor of the section as it was written. There were 68 comments which objected to mandatory coeducational classes and 139 comments totally opposed to coeducational classes. The opposition favored separate but equal programs and expressed concerns about physical differences between the sexes, safety, lockerroom supervision, and morality (Hølgren, 1974).

A leading advocate of the mandatory coeducational classes was the American Alliance for Health, Physical Education, and Recreation (AAHPER). The AAHPER provided assistance in writing the Regulations and identified sources of successful coeducational programs for HEW personnel to contact for interviews. Other proponents of the coeducational classes were primarily women's groups. The professional education associations were split in their views, with seven submitting favorable comments including the National Education Association, and ten expressing opposition, including the National Association of Secondary School Principals (Fishel, 1976, p. 97). All of the athletic groups submitting comments on the issue opposed the requirement for integrated classes and favored, instead, an option. This included the Association of Intercollegiate Athletics for Women (Fishel, 1976, p. 101). While the AAHPER was a leading supporter of

the mandatory coeducational classes, several groups related by interest spoke on behalf of allowing schools and students options for single sex and coeducational activities. These groups included the AAHPER Task Force on Equal Opportunity and Human Rights (1974); the Society of State Directors of Health, Physical Education, and Recreation (1974); and the Midwest Association of Physical Education for College Women (1974).

Letters written to the Department of HEW advocating options frequently spoke in favor of a "separate but equal" concept:

In recognition of the different needs, interests, and physical capacities of the two sexes, the guidelines should allow for separation of some activities in all phases of the physical education program .... The intent of the law should be so manifestly clear that discriminatory practices cannot take place, but some opportunities are left for professional people to make professional judgments (University of Northern Iowa, 1974).

and

Physical education courses in areas deemed socially sensitive (e.g. weight reduction) or providing for collision contact shall be exempt from the coeducational course requirement as long as comparable courses are offered separately for members of both sexes, whenever sufficient interest is evidenced (American Council on Education, 1974).

The Association of Intercollegiate Athletics for Women (1974) acknowledged the questions involved with the "separate but equal" concept but advocated it as a temporary measure:

While as a theoretical matter separate may never be equal, the fact remains, as noted at the outset of these comments, that there are now sexual differences relevant ... which may or may not be inevitable in the future ... but which do suggest that an enforced procedural equality would be irrational in that it would preclude maximal benefits to both men and women .... Since the goal of these regulations is

simply equal opportunity, and the question of whether integrated programs or separate but equal programs best achieve that goal remains an open one at present, AIAW urges HEW not to guess at the answer but to leave procedure to the regulated institutions unless and until a clear answer becomes available (p. 11).

By contrast, both the National Organization for Women (1974) and the United States Commission on Civil Rights were adamantly opposed to the perpetuation of any separate programs:

...full integration of presently segregated physical education classes is the one fair solution. As long as our schools and colleges are permitted to treat male and female students as separate groups these institutions will continue to design different programs for them based on traditional sex stereotypes surrounding sports (National Organization for Women, 1974, p. 7).

The U.S. Commission on Civil Rights (1974) expressed concern about the weakness of Title IX as a whole and questioned the allowance for athletic programs to be conducted in separate teams:

Title IX as enacted is replete with exemptions and exceptions.... Such exemptions would not be justified under Title VI and are explained only by a philosophy that sex discrimination is less invidious than race discrimination (p. 1).

Additional concerns about the coeducational requirement were raised by the National Association of Secondary School Principals (1974) who feared that opportunities for students would be limited rather than expanded, anticipating that several activities would be dropped from the curriculum simply because one sex or the other was not interested or capable. They also saw a substantial increase in costs for the school district because of a necessity to have a man and a woman available each period to supervise lockerrooms and, "... to administer aid in case of injury, as such treatment cannot be expected



to be administered by a teacher of the opposite sex." (p. 1)

Finally, there were the comments from individual citizens concerned with morality in the schools:

How about it? Are boys and girls, as part of their physical education class, to swim and frolic in the swimming pool in nothing but shorts and bikinis? I think too much body contact is not good. And will they have the same dressing rooms? It is bad enough now the way the girls walk around naked in the girls' shower and dressing rooms--as the boys do in the boys' shower and dressing rooms.

Have parents no right to say what their children learn at the public schools? How do you have the right to decide this and destroy a girl's modesty? And encourage body contact among the boys and girls in their physical education classes? No wonder the world is so wicked! (Ross, 1974, p. 1).

Faced with an overwhelming indication of opposition from the public regarding mandatory coeducational physical education classes, the Department of HEW decided nonetheless, "...that the clear words of the statute would not permit segregation by sex in any course (except where privacy concerns would require sex education classes to be segregated" (Gregory, 1977, p. 4). This decision outraged many, including the sponsor of Title IX, then Congresswoman Edith Green, who went so far as to say that she would not have voted for Title IX had she known that HEW would make this interpretation! (Gregory, 1977, p. 4).

Gregory (1977) summarized the situation this way:

...many people could not relate to the parallel between race discrimination and discrimination on the basis of sex. They continued to raise arguments which were nothing more than manifestations of traditional sex role stereotypes....

To Mrs. Green and to many members of Congress Title IX exists to promote economic equality... and was not intended

to interfere with the traditional roles of men and women. The analogue between Title IX and Title VI is simply not seen by a large number of members--possibly even by the majority (pp. 4-5).

### Implementation

Most of the studies completed to date reflected less than full acceptance and full implementation of the Regulations by the local school districts. Grebe (1974) surveyed Iowa high schools and found that physical education programs in 96 percent of the schools were separated on the basis of sex. Forty-nine (49) percent of the schools never offered coeducational classes, and another 34 percent had had it less than 10 percent of the time. When these same schools were asked what their plans were for the next three years, 44 percent indicated no plans to offer coed courses and 28 percent indicated that they would probably offer coed classes less than 10 percent of the time. Only 5 percent of the schools indicated intention to offer more than 60 percent of the program coeducationally. A single school district (of 67 schools) planned to offer coeducational classes 100 percent of the time, but to juniors and seniors only. There was a single physical education department in 63 percent of the schools, and in 82 percent of these a male was the department head. A number of differences in curricular offerings for boys and for girls was noted.

Saidak (1976) surveyed Tennessee secondary schools. While he found that coeducational physical education classes were on the increase, there was, nonetheless, a need for continued improvement. He found that physical education facilities were not equally available

to all students and that there was a disproportionately small number of full-time female physical educators.

One hundred forty-one Illinois schools were surveyed by Patton (1977). The conclusions of this study showed that a majority of the schools were not in compliance with Title IX, and that physical education and athletics were curricular elements most affected. The majority of the schools reported difficulties recruiting qualified women. The superintendents' responses indicated that most of the communities do not support sex discrimination mandates.

Attendant to implementation of the Regulations is both an understanding of and a commitment to the law. A number of studies have pointed to shortcomings in this regard. The Resource Center on Sex Roles in Education (1976) sampled 500 superintendents and 300 presidents to determine compliance levels after one year of the effective date of the Regulations. Only 51 percent of the superintendents and 45 percent of the presidents considered themselves thoroughly aware of the requirements of the Title IX Regulations. While 93 percent of the superintendents reported that a Title IX Coordinator had been designated, only 33 percent indicated that any job description was developed for this position. Notifications to students about the Title IX Coordinator were reported by 66 percent of the superintendents, while 73 percent reported notifications to employees. The self-evaluation was initiated in 67 percent of the school districts.

Secondary school principals in Alabama were surveyed by McDaniel (1976). He concluded from the study that principals lacked a knowledge

of the Title IX requirements. By inference McDaniel concluded that Title IX was not being fully implemented in the secondary schools. Only 28.9 percent of the principals had attended any type of Title IX in-service or workshop. The majority indicated that the main thrust of Title IX was to provide equality for women in sports.

Haselhoff (1976) examined the impact of Title IX in Iowa elementary schools. Only 28 percent of the schools held workshops on the subject, and dissemination of information about the scope and intent of Title IX was identified as weak. Ninety-seven percent of the schools indicated that since Title IX, equal access was offered to physical education programs. Thirty-nine percent indicated that there were still some class offerings by sex, most frequently for football and wrestling, and most often in the fifth and sixth grades.

Studies of Hesiak (1976) in Milwaukee and Allen (1977) in Dallas both examined attitudes and perceptions of school district personnel toward sex bias. Hesiak found coaches to be the most biased subgroup, and on the whole found women to be more biased than men. Respondents' scores in Dallas indicated a favoritism toward males in personnel practices, student services, counseling, curriculum, and athletics. Hesiak recommended that seminars be conducted for all school personnel which focus on attitude and value orientation change.

In a related study, McClure (1973) analyzed responses of 71 Iowa school superintendents in terms of attitudes toward affirmative action guidelines for eliminating sex stereotyping in the schools. Forty-five percent of the group were not convinced that sex discrimination

was really an issue and felt that there were too many more pressing problems to be faced by the schools. School district size was not a factor in the responses. As a total group, the superintendents were supportive of providing physical education facilities and equipment on an equal basis to both sexes and to providing equal opportunities for both sexes to participate in sports. Very little support was given to sponsoring any form of in-service experiences to reduce sex-stereotyping.

Massachusetts passed a state law, comparable to Title IX, known as Chapter 622 of the 1971 Massachusetts Legislative Acts. Graham (1975) assessed the impact and effectiveness of this law in the schools. Of all the subgroups studied, physical education women constituted the largest percentage of vaguely and uninformed subjects. Physical educators, more than any other group, preferred phasing in implementation. It was the physical education men, however, who were the slowest to comply with the law. Physical educators ranked lowest when compared with home economics and industrial arts educators in terms of both believing in and engaging in practices which provided equal treatment to boys and girls.

Silver, Podenski and Engin (1977) examined the implications of attitudes toward sex role differentiation for Title IX implementation. Participants in the study were 1219 educators from 14 different states. On the whole, the educators were found to be moderately liberal in their expressed attitudes, but they were more willing to contradict the stereotypes than to engage actively in equalization strategies.

Female educators tended to be more liberal in their orientation than the males. In general, however, the attitudes of teachers and administrators were similar, a fact the authors found surprising because most administrators were male.

With the indications of differential attitudes and with the varying degrees of knowledge about Title IX, one cannot help but question the extent to which implementation has taken place. The potential effectiveness of the law was left dependent on individual action. Perry-Miller (1976) summarized the situation this way:

In fact, the very conservatism of education as an institution indicated by the inclusion of Title IX as an amendment suggests that active implementation of Title IX depends solely upon the degree of commitment of the chief administrators of the educational institution, the degree to which that commitment is communicated to mid-administrators and the aggressiveness of women now employed in monitoring the stipulations of Title IX (pp. 17-18).

### Enforcement

The Department of Health, Education, and Welfare to date has an enforcement record that not only has been highly criticized for its ineffectiveness, but has been the object of three lawsuits as well. A settlement of those suits was reported on December 30, 1977 (HEW Bolsters, 1977) in which HEW agreed to hire an additional 898 workers to handle cases of discrimination by race, sex, and physical handicap. Further, HEW committed itself to clear a backlog of 3000 complaints and to initiate major civil rights investigations of schools and universities.

The Project on Equal Education Rights (1978) published results of a four-year study of the enforcement of Title IX by HEW. The

results clearly demonstrated that rules and policies in secondary schools were perpetuating unequal treatment of males and females and were going uncorrected. The report found HEW negligent in investigation of complaints, in initiation of its own investigations, and in provisions of public information about Title IX. Statistics showed that from June, 1972, to October, 1976, HEW resolved only one of every five complaints filed in elementary and secondary education. More than a third of the complaints filed in 1973 were still unresolved three years later. Investigations that were made into complaints were only cursory, with 76 percent of the cases closed without a school visitation by HEW officials. In the first four years of Title IX, HEW carried out independent checks on only twelve school districts. The report further claimed that HEW did have adequate staff to enforce Title IX. From 1973-1976 HEW received fewer than two Title IX complaints per year per investigator on the payroll. Those which were resolved constituted only .3 complaint per investigator.

A further criticism in the PEER report related to indecision on the part of HEW officials and failure to issue clear and consistent rulings on important issues. Now, more than three years after publication of the final Regulations, a decision still has not been made on the classification of soccer as a contact or noncontact sport.

HEW has reported progress in handling complaints (OCR Resolved, 1978). During the first three months of 1978, the Office for Civil Rights resolved 200 sex discrimination cases under Title IX. Seventy-

nine complaints ended in corrective actions. The Office for Civil Rights also reported an increase in productivity, with investigators now handling an average of seven complaints a year. All investigators have been required to account for their work time, and productivity goals have been set.

Another monitoring study of Title IX was done by the Southeastern Public Education Program of the American Friends Service Committee (1977). The report was titled Almost As Fairly, and documented results of the first year of Title IX implementation in six southern states. Gross violations were reported in all states. One of the most common violations was the failure to have sex-integrated physical education classes. Monitors pointed to separate classes, differing curriculums, and disparate treatment of boys and girls. Examples of violations included:

Refusal to let junior high girls participate in the Presidential physical fitness tests while boys were allowed to in Starkville, Mississippi (p. 22).

Provision of free gym suits laundered by the school for boys, while the girls were required to pay \$6.50 for their uniform and to take it home weekly to be washed, in Captain Shreve High School, Caddo Parish, Louisiana (p. 22).

Denial of opportunity for girls to take the test for a hunting license at the completion of a coed class in safety instruction in hunting in Russellville, Arkansas (p. 23).

On the whole, the teachers knew very little about Title IX or how its enforcement might affect them.

Although individuals and groups have continued to file complaints and protests and to demonstrate grave concern for enforcement, more



and more have speculated that ultimately, changes will come more from individuals than from institutions. Kadzielski (1977) stated it this way:

The Office of Civil Rights of the Department of Health, Education and Welfare and the courts will not make major contributions to the enforcement of its provisions (Title IX). Rather, the behavioral and attitudinal changes occurring in society, as a result of the expanded public consciousness and stepped up political pressures from organized groups of women, will increasingly make formal, legal redress unnecessary (p. 203).

That women's groups have organized to meet the challenge and to exert force to change is evidenced by the publication of monitoring guides and kits by such groups as the Project on Equal Education Rights, Cracking the Glass Slipper (1977), and by the American Association of University Women (1977). The major responsibility for the implementation of Title IX has thus been left to the individual school districts and local communities where personnel are mixed in their knowledge, support and commitment.

#### Coeducational Physical Education

From the earliest times discussion, debate, and controversy have surrounded the role of physical activity in the lives of women, and specifically in the nature of physical education classes for women. In The Republic Plato recommended the same education for women as men, including training in gymnastics, to enable them to perform the same functions as men so that "society will get the best value from both" (p. 201). Sparta reportedly was the only society to give full physical training to young women until the latter half of the 19th century.

Other societies and other great philosophers and educators were reserved in their views of women and expressed reservations about their physical capacities.

Although Plato advocated education for women in The Laws, he called for it to be held in a separate setting and for separate purposes: while the men were trained to fight afield, the women were trained to defend the city while the men were away (p. 177). Rousseau also believed in physical training for both sexes in separate settings, but his purposes were different from those of Plato: the object for the boys was to bring out strength, while the women were to gain "enough strength to act gracefully" (Gerber, 1971, p. 81).

Oberteuffer and Ulrich (1962) reported that from the time of colonial days, physical education programs in the United States were conducted separately for boys and girls from the primary years on. It was considered "unwise, impractical, or immoral" to hold classes together (p. 383). Although this practice held for more than two centuries, there were physical educators throughout the history of the profession who disputed the sex differences attributed as the basis for the separation and who advocated coeducational programs. A strong such advocate was Dioclesian Lewis. Gerber (1971) described the classes in his Normal Institute as including men and women in about equal numbers. He is reported not to have charged women as much money because he felt women to be so unjustly compensated for their work. He further objected to the restrictiveness and weight of women's clothing (p. 261).

It should be noted that the controversies surrounding women and physical activity were on two fronts: (a) which activities were appropriate for women in terms of their physical capabilities and (b) which activities were appropriate for men and women to engage in jointly. Metheny (1958) reported on a debate by Gulick and Sargent at the meeting of American Association for the Advancement of Physical Education in 1893:

Gulick: It seems to me that there are physiological reasons why women should not do the kind of apparatus work which is largely done by men, where the weight of the body is supported continually by the arms .... The women whom I have seen who excelled in apparatus work, were, as a class, ... not the kind of women who seemed to me most womanly.... (p. 134).

Sargent: As far as movements go, there is nothing in the line of gymnastics which some women cannot do with just as much readiness as some men, and I do not think that, outside of the so-called esthetic standpoint, there are any physiological reasons why women should not do most things that men do (p. 134).

Sargent, however, implemented his ideas about exercise for women in a separate sex setting with his Sanatory Gymnasium, opened in 1881 for the girls of Harvard Annex (Gerber, 1971, p. 291).

Accounts by Ainsworth (1930), Gerber (1971, 1974), Lee (1977), and VanDalen (1971) have all documented the differential programs and expectations set up for girls and boys, women and men. Though some continued in the early 1900's to question such separation, they were able to do little to effect change in their own programs. Such was the case with Mabel Lee. By her own account (1977), she passed up a job at Rockford, Illinois, an all-girls school, for one at Coe College, a coeducational institution. She had just completed schooling herself

under Amy Morris Homans at the Boston Normal School of Gymnastics where the walls of the lockerroom carried a quotation from Shakespeare's King Lear, "Her voice was ever soft, gentle and low, An excellent thing in woman." Her decision to take the Coe job was explained:

... it positively seemed un-American to me to allow boys and girls to be educated apart from each other. So I longed to escape from the world of an all-girl school (p. 188).

At Coe, however, Ms. Lee had to teach physical education in separate sex classes:

I carefully never permitted boys and girls to come together to the gym to learn those dances and practice together. Thus I could not be accused of sponsoring actual social dancing in mixed groups in the gym, which was against the college rules (p. 253).

Even in the 1920's the separateness of the programs was recognized as unequal by Lee (1977). She reported the situation at Beloit College, where she moved from Coe:

When I started my work there ... I found a department of physical education for women with no equipment of its own, with permission to use the gymnasium only a few hours a week, and a dressing room of only one large room with no lockers, no showers, and only chairs about the room and hooks on the wall. For an office I had a mere cubbyhole off a hallway in a building far removed from the gymnasium. The entire physical education program for girls consisted of only six activities. Shortly at my urging, President Brannon had moved us into the gymnasium, recognizing women as bonafide students along with the men and privileged to use the gymnasium on an equal basis. But this was accomplished only with great howls from some of the men, both from the physical education staff and the student body. There were frequent outbursts in the student paper ... wishing Beloit were once more a men's college and complaining that the women were crowding out the men (pp. 376-7).

In at least some places during the early 1900's there were co-educational classes. The most unique situation was probably found at the University of Southern California. When the physical education major was started in 1922 and William Ralph La Porte was made head of the department, the classes were coeducational and have been ever since. This was a definite exception to the situation across most of the country (Hall). McCloy (1976) reported of his own teaching in 1914:

Men and women enjoyed doing a great many activities together. About all, in fact, that were not limited by the differences in the amount of strength possessed by the women. They took their fore-hand exercises together; their club swinging, and that type of thing. They were separated into squads for apparatus work, played together in their games; corecreation is not a modern thing (p. 37).

The corecreation practiced by McCloy did not become common, however.

He reported:

A number of changes in program were made as time went on. The men did less and less dance and more and more athletics. The women did less and less athletics and more and more dance. This was not because both were not good for both, but because, I believe, of inadequate and biased thinking and not too smart leadership in the case of both sexes (p. 39).

In 1940 McCloy expressed strong support for equality of the sexes in his Philosophical Bases for Physical Education. He identified sex equality as a criteria of civilization and labelled physical education as "lax" in the area:

There have been too few good joint programs such as have been the rule in some of the more socially minded European countries. We need equal opportunity in physical education for the sexes and much participation on an equal footing (p. 135).

He engaged in research about the landing shock in women's jumping and concluded that the adverse opinions expressed at the time were based on erroneous assumptions about the anatomy of females. As he made projections in 1940 for the next decade, he identified as a central question:

What are the important differences of structure and function between boys and girls, and what real differences do they make to physical education? Many of the traditional beliefs can readily be proven to be erroneous. Others obviously make no difference, except in limiting the speed at which a girl may perform for a given time. These and many other facts must be sought in order that our physical education of the next ten years may be built on fundamental beliefs based upon facts (p. 301).

The research called for by McCloy was never fully conducted, and the programs of the 1950s and 1960s continued to be predominantly single sex. Although there were increasing calls for coeducational classes, they were advocated primarily for social reasons and limited to individual and recreational activities. Such a philosophy was exemplified in the writings of Brownell and Hagman (1951), Halsey (1961), and Todd (1960). Two of the most noted men of this time period, Oberteuffer (1956) and Williams (1964), included in their writings differential treatment by sex as principal considerations. Both stated that such considerations would result in different activities in the program for each sex. Williams (1964) continued to raise concerns about the pelvis in women, in apparent rejection of the earlier conclusions of McCloy (1940). He was concerned also about the arm strength of girls and repeated the objections raised by Gulick in 1893:

The emphasis upon competitive excellence in track and field that flows from the Olympic games and the tendency to select for professional preparation women of masculine type give an improper direction to physical education of girls and women.

Since the arm strength of girls after puberty is small in relation to weight, their program should avoid activities which require support of the body by the arms... (p. 205).

Mixed views about the physical capacities of women, coupled with the prevailing societal expectations for appropriate female role behavior, resulted in a categorization of sports acceptable for girls and women. In 1964 Metheny (1977b) conceptualized the categorization and noted that, "the facts of biology provide no logical basis of support for these "relative distinctions" (p. 94). Earlier, Metheny (1977a) had identified the source of much of the confusion about sex differences and their implications for physical education programs:

One of our more pervasive half-fact forms of confusion stems from our tendency to identify averages as norms or as criteria of normality. This fallacy denies the uniqueness of the individual and his implicit human right to be as he was created.

... what the research really shows is a difference between averages, found within two overlapping ranges of scores that reveal that the traits measured are about equally distributed in the two sexes (p. 124).

Where coeducational activities did emerge in physical education programs, they were designed to promote social relationships. Kozman, Cassidy, and Jackson (1967) identified coeducational physical education as one of the best mediums for helping boys and girls make necessary social adjustments. Through joint participation, they said, students could, "learn to understand, appreciate, and respect the opposite sex at the same time that some of the mystery and glamour is

rubbed off in favor of more normal, casual, realistic relationships" (p. 283). Todd (1960) posed three questions for the evaluation of coeducational programs:

1. Do they contribute to present boy-girl relationships, to the recreational needs of young marrieds on small budgets, or, preferably to both?
2. Are the rules they play suitable for the girls as well as the boys?
3. Are fun and the development of social skills the prime objectives? (p. 137).

Kozman, Cassidy, and Jackson (1967) recognized that both men and women teachers should have the insights and understandings necessary to teach groups of the same sex, the opposite sex, or mixed, but acknowledged a stumbling block to such practices: "the attitudes of men and women staff members toward one another's programs" (p. 284). They said that cooperative ventures were prevented by the fact that some men were ill-prepared to instruct activities suitable to coeducational participation due to the pressure they faced to produce winning teams, coupled with the "holier-than-thou" attitude of some women who had had more training and experience in the suitable activities. The authors called for better understanding of one another's programs.

Publications of the early 1970s showed little difference in their treatment of coeducational physical education than had those of the previous decade. Barrow (1971) stated that, "The curriculum must recognize the importance of co-education as part of the program of activity" (p. 36). On the very next page, however, he called for separation of the sexes after the fourth grade due to sex differences.



The sample curriculum outlines in the book depicted separate programs with differential activities for boys and girls. Likewise, Thompson (1971) advocated that the regular instructional program include co-educational physical education, but at the same time suggested that consideration be given to separation of the sexes after the fifth grade.

Daughtrey and Woods (1971) strongly advocated not only sex-separate classes, but different activities for the girls and boys programs. To support this viewpoint they cited a 1951 report on physiological dangers of lifting and jumping for girls (p. 105). These were concerns which McCloy had discounted in 1940! The 1976 revision of their work omitted reference to this 1951 report, but their stance for separate programs remained clear:

Although Title IX emphasizes the need for a reevaluation of programs for girls, the fact remains that anatomically girls are different from boys... for the majority of girls taking physical education, careful attention should be given to the inclusion of certain activities especially suited to girls (p. 154).

In the revised edition of Daughtrey and Woods, Williams (1964) is quoted as acknowledging inadequate arm strength in girls, and physical educators are called to, "apprise administrators, teachers, and the public of ... the anatomical and physiological structure of girls, which definitely points to the exclusion of some activities from the girls' physical education curriculum" (p. 155). Some of the same curriculum charts are used in this edition as that of 1971, all of which are for separate programs.

Bucher (1972) identified the women's liberation movement as "a significant change in our society having implications for physical education" (p. 338). In his 1975 book, however, he devoted only two paragraphs to coeducational activities (p. 155). Similarly, Willgoose (1974) said:

The separation of the sexes ... is a thing of the past. In fact, there are numerous instances where the dual organization of physical education programs works against the best interests of the students. Also there is no underlying scientific basis for separate male and female programs (p. 93).

Discussion of coeducational programs was limited to a single paragraph, and the sample program outlines for curriculum offered in the book still reflected separate boys' and girls' programs.

Greater support for coeducational programs was offered by Vannier and Fait (1975). They called for coeducational activities on all levels with the following rationale:

Members from each sex....receive mutual benefits, for the boys tone down and become less competitive, while the girls pick up and become interested in sports, games, and exercise. Each sex gains a new appreciation and understanding of the special aptitudes, skills, and contributions made by members of the opposite sex. Equally important, the sharp distinction between the roles of the sexes in sports and other major activities is greatly diminished (p. 199).

Ability grouping was advocated for highly skilled boys and girls, but with this qualification: "poorly coordinated boys should not be placed in a dancing class with highly skilled girls" (p. 200). The development of social skills and knowledges was emphasized, with skill mastery secondary, only to be emphasized to the extent of increasing player enjoyment. Individual sports were deemed most

satisfactory; team sports were supported if modification of the rules took place.

Beginning in 1972, expression for coeducational programs increased, particularly in professional articles and speeches by physical educators. Peridier (1972) and Elliott (1972) both called for immediate action to implement coeducational programs. Ulrich (1973) chastised the profession for the mutual antagonism perpetuated between the men and women over the years, an antagonism which she said had limited professional growth. She concluded, "...quality does not have a gender" (p. 76). In 1973 she spoke similarly, this time challenging the profession to overcome its past history of conservatism and stereotyping:

It would be my plea that we in physical education take a forward step with regard to equality between the sexes and be in the vanguard of action which promotes the concept of equality without having to be sued to show our good intentions. We are in an excellent position to be the model personality as our society undergoes the throes of pain brought about by changes regarding gender expectation roles (1973, p. 35).

Advantages of coeducational programs thereafter were conceived to be broader than social relationships. In addition to the social considerations, Elliott (1972) identified (a) significant gains in the fitness levels and attitudes about fitness on the part of the girls, (b) a better balance in the broad spectrum of activities in the curriculum, (c) greater stress on all the aims and foundations of physical education programs by teacher-training institutions, (d) more homogeneous groupings of students, (e) greater capitalization on teacher expertise, and (f) utilization of student-to-student teaching

as being positive outcomes of required coeducational physical education programs (pp. 35-36).

The literature about implementing coeducational programs to comply with Title IX has been limited primarily to interpretation of the law, rather than to practical guidelines for initiating programs. Arnold (1977) and Kelly (1977) have written articles on this topic. An exception to this has been the work of Blaufarb (1976, 1978). Not only have specific suggestions been provided for practical implementation, but successful programs have been cited with reactions from participants. Problem areas identified by Blaufarb and possible solutions were: (a) facilities use and management, (b) sexuality concerns, (c) discipline, (d) safety and liability, (e) locker-room supervision, (f) dress standards, (g) student evaluation, and (h) sexist teacher behavior patterns. The seriousness with which some have viewed these problems was noted, "... the fears of undesirable results arising from sex-integrated physical education classes are greater at the high school level than at any other" (1976, p. 7). The role of the school administrators in successful program implementation is cited by Blaufarb:

It is particularly important for administrators to be supportive and enthusiastic about any changes because if they appear lukewarm then neither parents, students, nor faculty will be strongly supportive. Administrators, athletic directors, well-known teachers and coaches can be helpful in working with local groups to explain the changes (1976, p. 19).

Kneer (1978) identified an additional problem in fully implementing coeducational classes: inadequate professional preparation

of teachers. Instructional problems expressed by teachers in sex-integrated classes included:

1. Boys will learn faster and will need less practice.
2. Boys will play more aggressively and deny girls meaningful involvement.
3. Boys are not interested in instruction.
4. Girls will experience an unsafe and unwholesome learning environment (p. 80).

Many have proposed modification of rules or adaptation of games to counteract some of the problems experienced in the combined classes. Gunsten (1976), Johnson (1977), and Taylor and Mikols (1977) all have reported on such ventures.

A further concern expressed about the coeducational programs has related to their administration. Although Title IX does not mandate a single administrative structure, Razor (1976) reported that in a sample of four-year institutions in the Midwest District of the American Alliance for Health, Physical Education, and Recreation, 82 percent of the departments were merged. Of those merged, 82 percent were headed by men (p. 32). No studies have reported the status of such programs at the high school level.

Reports on student perceptions of coeducational programs have been extremely limited. The Greenfield (Iowa) High School newspaper carried an article "Most Dread Coed PE" (1978). The headline of the article was, "Because of the equal rights amendment, Greenfield High, beginning in the fall of 1978, will be required to offer co-ed physical education." A poll reported 72 percent of the students

were "dead set against the idea." Student comments reflected a desire for a choice in coed or separate classes. A panel of junior high school students shared their views on coeducational classes at the 1978 national convention of the American Alliance for Health, Physical Education, and Recreation in Kansas City (Reactions to Civil Rights, 1978). Reactions by the students on the panel were mixed, but generally quite positive. Students were supportive of greater opportunities and challenges for the girls and of improved social relationships. There was acknowledgement, however, of some feelings of excessive roughness and of boys being held back by the coeducational classes. There was also expression of differential expectations and treatment of girls and boys by male and female teachers.

The current literature does not speak as directly of physiological differences as bases for program differentiation as in the past. But recognition has been made of a need for separation in contact sports. The need for accurate research remains as attempts are made to distinguish stereotypes from differences. The dangers of the stereotypes on which so many programs have been based have been articulated by Gregory (1977):

I don't know what little boys and girls are made of. It depends on the little girl or the little boy. Title IX treats every boy and girl as little people with his or her own needs, ambitions, and capabilities and requires the educational community to treat each child as an individual and not as a member of an irrelevant group of males and females. Is Title IX necessary? Yes. Hundreds of years of tradition will not be changed voluntarily. Does it benefit society? I think so. Stereotypes are convenient administrative tools but have no place in the education of children. The word "stereotype" originally meant a "print" of something such as a book. The

"stereotype" was undistinguished by any individual characteristic or originality. Surely we have come beyond treating little children as "prints" (p. 7).

The intent of Title IX and of coeducational physical education programs has been to eliminate the treatment of students as "prints" of their gender. The present study examined the extent to which this intent has become reality in selected Iowa high schools.

## CHAPTER III

### PROCEDURES

#### Subjects

The subjects for this study were twelve Iowa high schools accredited by the North Central Association. The schools were drawn randomly to create a proportionate sample of four large schools, four middle-size schools, and four small schools. The three sizes of categories were suggested from classifications used by the Iowa Department of Public Instruction, Public School Data for the 1976-77 School Year. Large schools were those whose average daily membership in the district exceeded 3000 students. Middle-size schools had 1000-2999 students in average daily attendance for the district. Small schools had 0-999 students in average daily membership.

Data from the Iowa Department of Public Instruction for the 1976-77 school year based on assessed property valuation per resident child in average daily membership were used to distinguish school districts by socioeconomic level.

The universe from which the sample was drawn consisted of all NCA-accredited high schools within a 100-mile radius of Cedar Falls, Iowa. The eligible schools were grouped according to size and further subdivided within each size category into three socioeconomic levels: low, middle, and high. Through use of the table of random numbers, four schools were drawn from each size category, representing one



high, one low, and two middle schools according to socioeconomic level. See Table I for demographic data about the sample.

Table 1  
Subjects

School	Size Class.	H.S. Enrollment	Community Setting	Socio-Economic Status
A	Large	1400	Urban	Middle
B	Large	1636	Urban	Low
C	Small	180	Rural	High
D	Middle	422	Small Town	Low
E	Small	255	Rural	Middle
F	Middle	459	Small Town	High
G	Large	1000	Urban	High
H	Small	117	Rural	Low
I	Large	1005	Urban	Low
J	Middle	360	Small Town	Middle
K	Middle	760	Med. Town	Middle
L	Small	218	Rural	Middle

Letters were mailed on March 16, 1978, to the twelve schools drawn for the sample, describing the study and seeking their participation (see Appendix). A postcard was enclosed for schools to respond to by March 24, 1978. Follow-up was conducted by telephone to schools which had not responded by this date. Three of the original twelve schools declined to participate in the study. Substitute schools were drawn and letters were sent to these schools, again with a postcard for response. Of these replacement schools, one declined and an additional school was drawn. This school also declined, and

one more school was drawn. The latter accepted.

Upon receipt of an affirmative postcard, school principals were telephoned to establish a visitation date. A follow-up letter (see Appendix) was then sent to each school confirming the visitation date and outlining the procedures for the day. The first visitation was made on April 12, 1978. The last visitation was made on May 9, 1978.

Data were collected from three primary sources within each school: high school principals, high school physical education teachers, and high school students.

#### Variables Studied and Methodology

Variables studied for each subject included (a) the extent of implementation of the Title IX Regulations in physical education programs and (b) the perceptions held of these programs by the principal, a male and a female physical education teacher, and a sampling of ten percent of the high school students. Two techniques were used in collection of the data for these variables: a focused interview (see Definitions) with the principals and the teachers and a questionnaire with the students.

The two major variables were examined according to the following subvariables: (a) level of compliance with the Title IX Regulations, (b) roles of the respondents (principals, teachers, students), (c) sex of the respondents, (d) size of the school, and (e) socioeconomic status.

## Interviews

The format for the focused interviews was designed according to the principles outlined by Merton, Fiske, and Kendall (1956), Selltitz (1963), Kornhauser (1963), and Kerlinger (1963). According to Merton, et al. (1956), "The primary objective of the focused interview is to elicit as complete a report as possible of what was involved in the experience of a particular situation" (p. 21). The interview included structured, semi-structured, and unstructured questions so as to elicit information and perceptions about the implementation of Title IX in physical education programs.

The specific question content was based on material from the Title IX Regulations, the comments submitted to HEW about the Regulations, and related literature. The questions were aimed at gathering data in accord with the Statement of the Problem. Prior to data collection, there was consultation with a high school principal, a high school physical education teacher, and two university physical education professors about the content and the order of the interview questions.

The questions were grouped into five areas of focus to gather data related to the requirements outlined for physical education in the Title IX Regulations, the local school program areas affected by the implementation, and the evaluative reactions and comments by the individuals. In addition, background information on the individuals was collected. The principal categories questioned were (a) physical education program administration, (b) curriculum, (c) impact of Title

IX on program administration and curriculum, (d) summary comments, and (e) personal and community background. The final interview schedule is contained in the Appendix. See Table 2 for an outline of the major headings.

Table 2  
Outline of Interview Schedule

---

Physical Education Program Administration
Requirements
Scheduling of Students
Staffing Patterns
Organizational Structure
Curriculum
Single-Sex Activities
Coeducational Activities
Evaluation of Students
Student Input
Impact of Title IX on Program Administration and Curriculum
Changes That Have Already Been Made To Comply With Title IX
Changes Yet To Be Made To Be In Full Compliance
Personal Views on These Changes
Availability of Information and Need for Assistance
Summary Comments
Positive and Negative Aspects (Problems)
Perceptions of Equality Within Programs
Implications For the Future
Personal and Community Background

---

The interviews took approximately 45 minutes per person and were conducted in each school with the principal, the head of the physical education department, and one other member of the school's physical education department who was the opposite sex of the head. Where there was no designated head, one male and one female were interviewed. The principal of each school identified the teachers to be interviewed. Respondents were given an outline at the beginning of the interview

of the topics to be discussed. The interviews were taped with permission of the subject and later transcribed by the investigator. One interview was not taped because the physical education teacher had no free periods on the day he was interviewed, and the interview had to be conducted during his supervision of a track and field class. All questions were asked, and the investigator recorded his responses by taking notes. Two interviews were conducted by telephone rather than in person. In one instance, a principal had to be out of town at a meeting. In the other instance, a physical education teacher was hospitalized at the time of the scheduled visit. Both of the telephone interviews were taped, and the investigator did not feel that the content of the interview was affected by the lack of eye contact. All interviewees were guaranteed anonymity.

### Questionnaire

A modification of a questionnaire developed by Geadelmann (1977) was used with the students. A copy of the instrument is included in the Appendix. Prior to use of the questionnaire, there was consultation with a high school physical education teacher, a high school principal, and two university physical education professors about the questionnaire items. Questions which paralleled those in the interviews were included as well as questions specifically directed to student viewpoints. Thirty-nine of the items were multiple choice; the answers were recorded on IBM answer sheets. Four questions were short answer in type and were written on the back of the answer sheet. Only student grade and sex were reported on the answer sheets.

Completion of the questionnaire took an average of fifteen minutes for the student respondents. Two forms of the questionnaire were reproduced, identical in content, but different in tense to serve those who had not been in coeducational classes, as well as those who had.

The questionnaire was administered in each school to ten percent of the high school students, representing grades ten through twelve and both sexes. Students who answered the questionnaire were identified by the school principals and physical education teachers, taking into consideration the grade and sex requests of the investigator. For the most part, intact physical education classes were used. Although no record was made, school officials attempted to include a cross section of athletes and nonathletes in the sample. All respondents in the study were guaranteed anonymity by name and by school in attempt to obtain open responses.

Directions for completion of the questionnaire were self-explanatory. Answer sheets and number two pencils were provided by the investigator. In eleven of the twelve schools, the questionnaire was administered by the investigator on the day of her visit to conduct interviews. In one school, however, it was not possible to do this. The materials were, therefore, left with the understanding that the school would administer the questionnaire and mail the materials back within a week. It took five weeks, five telephone calls, and a return trip to pick up the materials. The data from this school were incomplete because the seniors had already finished

school before the questionnaire was administered. In the analysis of data, adjustment was made in the computer program to account for this discrepancy.

### Pilot Studies

Two pilot studies were conducted to test for question clarity, respondent reactions, interview length, and data results. The first pilot was run at a small school on March 30, 1978. Minor adjustments were made in the interview questions; e.g. two questions were added for clarification of curricular practices and one change was made in sequence to allow for more natural progression. The questionnaire required no revisions.

A second pilot study was conducted on two half-days, April 5 and 6, 1978. The second study was done primarily to provide the interviewer with additional practice. This study was done at a large metropolitan school.

Procedurally both pilot studies were successful. The procedures, interview techniques, and results of the pilot studies were discussed with the Coordinator of Women's Studies at the University of Northern Iowa and deemed to be appropriate for fulfillment of the purposes of the study. The computer program to treat the student questionnaires was designed by Ms. Ruth Smith, Senior Program Analyst, University of Northern Iowa Computer Center, and tested with the pilot data.

## Analysis of Data

### Interview Data

All tapes of the interviews were transcribed by the investigator. The responses were charted by section according to outline of the interview schedule. See Table 2.

Responses of interviewees that did not relate directly to the two major variables, extent of implementation and perceptions held of programs, were not utilized in the analysis of data.

Relevant responses were analyzed and used to categorize schools into three levels of compliance with the Title IX Regulations: (a) full compliance, (b) partial compliance, and (c) noncompliance (see Definitions). Within each compliance level the data were examined according to the roles of the individuals, the sex of the individuals, and the sizes of the schools. Socioeconomic status was a secondary factor in the analysis.

Schools were coded by letter as follows:

A, B, C = Full Compliance

D, E, F, G, H, I, J = Partial Compliance

K, L = Noncompliance

Coding of the responses was as follows: P = Principal, MT = Male Teacher, FT = Female Teacher, and S = Students.

### Questionnaire Data

The objective portion of the questionnaire was analyzed by a SPSS computer program which yielded percentages, frequency distributions, and cross tabulations with chi square. Each question was



treated by tabulations according to sex of respondent, school size, and compliance level of the school. Significance for the variables in the cross tabulations was considered to exist at the .05 level or below. The responses to the open-ended questions were tallied and grouped into like categories by grade and by sex. The results of the student questionnaires were examined independently as well as in conjunction with the data from the respective principal and teachers from each school.

## CHAPTER IV

### FINDINGS AND DISCUSSION

This chapter was organized according to the three major purposes in the Statement of the Problem. For examination of the extent of implementation, schools were divided by compliance level, and the responses of the principals and teachers were reported according to the major sections of the interview schedule. Items from the student questionnaire related to extent of implementation were also reported. The perceptions held of the programs were examined according to the roles of the respondents: principals, teachers, and students. Once again, major sections of the interview schedule were used to report the responses of the principals and teachers. Student responses to the questionnaire were examined as a total group, by sex, by school size, and by compliance level. Comparisons of the three groups of respondents were made in a summary section. Finally, a section was included which drew implications from the findings of the first two variables for future program development in physical education.

#### Extent of Implementation

Schools were grouped into three categories according to their level of compliance with Title IX Regulations: full compliance, partial compliance, and noncompliance (see Definitions). Areas of the Title IX Regulations evaluated to determine compliance included access to course offerings, access to facilities and equipment, and equal

treatment of students in terms of policies and requirements. The specific categories of the interview schedule analyzed to determine the extent of implementation included (a) Program Administration, (b) Curriculum, and portions of (c) Impact of Title IX on Program Administration and Curriculum. Profiles of the data depicting the schools in each compliance level are found in Tables 3, 4, and 5.

#### Full Compliance Schools

Three of the twelve schools were determined to be in full compliance with the Title IX Regulations pertaining to physical education classes. Two of the schools, A and B, were large and one was small, C. On the basis of the Iowa Department of Public Instruction financial base figures for school districts, it can be said that one district each represented the low--B, middle--A, and high--C socio-economic classifications.

Program administration. The two large schools operated an elective program whereby students registered for specific activities and instructors. One of these schools, A, offered students a two day per week pass-fail option or a daily graded option which would be averaged in with the cumulative grade point. The small high school, C, had students self-schedule by class period. In all three schools classes were of mixed grade levels. The two large high schools primarily had one instructor per activity, while the small school primarily utilized team teaching, with a man and a woman scheduled together each period.

Table 3  
Schools in Full Compliance

	School		
	A	B	C
<u>Program Administration</u>			
P.E. Staff			
M	3	4	1
F	3	1	1
Gender of P.E. Dept. Head	M	F	F
Scheduling	Elective Activities	Elective Activities	Elective by Period
<u>Curriculum</u>			
Yrs. of Coed P.E.	7	5	2
Single Sex Classes	None	None	Flag Football
<u>Impact of Title IX</u>			
Changes to Comply	None	Revised course descriptions	Scheduling girls & boys together
Problems Complying Changes Yet to be Made	None Attitudes	None Make offices accessible	None None
<u>Sources of Information</u>			
p <sup>a</sup>	Prof. org., admin., mtgs.	Dist. PE Coord.	State dept., fed. govt., mtgs.
MT <sup>b</sup>	None, ignored it	JOPER, <u>Update</u> , U of I	Local admin.
FT <sup>c</sup>	Newspapers, asst. prin.	PE Coord., lit.	Admin., mtgs., notices
<u>Know Title IX Coord.?</u>			
P	Yes	Yes	Yes
MT	No	No	No
FT	Yes	Yes	Not sure
S <sup>d</sup> (% Yes)	8.3	12.6	0
<u>Know Grievance Proc.?</u>			
P	Yes	Yes	Yes
MT	Think so	Think so	No
FT	Yes	Yes	Think so
S (% Yes)	29.8	29.1	46.7
<u>Info Clear &amp; Adequate?</u>			
P	Yes	Yes	Yes
MT	Haven't paid attn.	No	No
FT	Yes	Not sure	Not sure
<u>Assistance Needed?</u>			
P	None	None	Eval. checklist in a year
MT	None	Clear info.	Material from other program workshops
FT	None	Consultant to review program	Coed curriculum resources
Areas of Noncompliance	None	None	None

a p = Principal  
b MT = Male Teacher  
c FT = Female Teacher  
d S = Students

Table 4  
Schools in Partial Compliance

	School		
	D	E	F
<u>Program Administration</u>			
P.E. Staff			
M	1	1	1
F	1	1	1
Gender of Dept. Head	None	M	None
Scheduling	Students assigned by periods	Students assigned by periods	Students assigned by periods
<u>Curriculum</u>			
Yrs. of Coed P.E.	2	1	2
Single Sex Classes	Basketball, hockey, speedball, flag football, soccer, wrestling, lifting, fitness	Wt. lifting, dance, fitness, jogging, FB, BB, wrestling	Soccer, tumbling, hockey, handball, football
<u>Impact of Title IX</u>			
Changes to Comply	Scheduling, added equipment	Scheduling	Girls' lockerroom, extended offerings
Problems Complying	None	None	None
Changes to be Made			
P	None	None	None
MT	Training fac. for girls	Lockers for girls	None
FT	Training fac. lockers for girls	Space, lockers for girls	None
<u>Sources of Information</u>			
P	Seminars	State dept., AEA	State dept., AEA
MT	Admin.	Supt.	Supt., seminar
FT	College	Little, male teacher	Fliers
<u>Know Title IX Coord.?</u>			
P	Not sure	Yes	Yes
MT	Not sure	Not sure	No
FT	Not sure	No	No
S (% Yes)	8.3	0	1.9
<u>Know Grievance Proc.?</u>			
P	Yes	On file, haven't read it	Yes
MT	Not sure	No	No
FT	Not sure	No	Not sure
S (% Yes)	33.3	55.2	33.3
<u>Info. Clear &amp; Adequate?</u>			
P	Yes	Yes	Yes
MT	No	Haven't studied it	Yes
FT	Yes	No	Yes
<u>Assistance Needed?</u>			
P	No	No	No
MT	Broader program	Curric. guidelines, ideas, norms	Info. on legal aspects
FT	Resources for coed	Help in understanding requirements	Workshop
<u>Areas of Noncompliance</u>			
	Diff. uniform requirements by sex	Separate sex classes	Separate sex classes
	Separate sex classes		
	Grading differentials		
	Shower requirements		

Table 4 (Continued)

	School	
	G	H
<u>Program Administration</u>		
P.E. Staff		
M	2	1
F	1	0
Gender of Dept. Head	M	M
Scheduling	Elective activity	Sched. out of study hall
<u>Curriculum</u>		
Yrs. of Coed P.E.	10	2
Single Sex Classes	All sophomores, modern dance	Football--boys only speedball--girls only volleyball
<u>Impact of Title IX</u>		
Changes to Comply	Deletion of sex designations on course offerings Converted boys' locker room to girls Whirlpool for girls	Scheduling together
Problems Complying Changes to be Made	None	None
P	None	Inform people of grievance procedure
MT	None	None
FT	Need larger girls' locker room	----
Sources of Information		
P	Fed. govt., local dist.	DPI
MT	Dist. P.E. coord.	School prin.
FT	Newspaper, dist. Title IX coord.	----
Know Title IX Coord.?		
P	Yes	No
MT	Yes	No
FT	Yes	----
S (% Yes)	13.1	9.7
Know Grievance Proc.?		
P	Yes	No
MT	Yes	No
FT	Yes	----
S (% Yes)	36.4	32.3
Info. Clear & Adequate?		
P	Adequate, not clear	Yes
MT	Yes	Yes
FT	Adequate, not clear	----
Assistance Needed?		
P	No	No
MT	No	Curric. ideas
FT	Yes, curricular	----
Areas of Noncompliance	Separate-sex classes Unequal facilities	Separate-sex classes Different course offerings Differential shower requirements

Table 4 (Continued)

	School	
	I	J
<u>Program Administration</u>		
P.E. Staff		
M	3	2
F	1	1
Gender of Dept. Head	F	None
Scheduling	Electives by period	By grade
<u>Curriculum</u>		
Yrs. of Coed P.E.	2	2
Single Sex Classes	Swimming	Handball, strength unit, weight training
<u>Impact of Title IX</u>		
Changes to Comply	Facilities & equipment made equally accessible, scheduling, course offerings	None
Problems Complying	Lockerroom supervision, accountability in grading & attendance	None
Changes to be Made		
P	Add 1 more female teacher	Make whirlpool & wt. room accessible to girls
MT	None	" " " "
FT	None	" " " "
Sources of Information		
P	Central admin.	Fed. govt.
MT	Central admin., dist. P.E. coord.	Clinic, handouts
FT	Title IX coord., lit.	JOPER, <u>Update</u> , prin.
Know Title IX Coord.?		
P	Yes	No
MT	No	Not sure
FT	Yes	No
S (% Yes)	6.0	7.3
Know Grievance Proc.?		
P	Yes	Not sure
MT	No	Think so
FT	Yes	Yes
S (% Yes)	44.4	56.1
Info. Clear & Adequate		
P	Yes	Yes
MT	Yes	Yes
FT	Yes	Yes
Assistance Needed?		
P	No	No
MT	Realities of program, attitudes of students	Yes, don't know what's available
FT	Info on implementation in other schools	No
Areas of Noncompliance	Separate-sex swim classes Different uniform requirements	Grading by sex, separate sex activities

Table 5  
Schools in Noncompliance

	School	
	K	L
<u>Program Administration</u>		
P.E. Staff		
M	2 (1/2 time)	1.2
F	1	1
Gender of Dept. Head	F	M
Scheduling	Elective activity	G - Elective activity B - Elective by period
<u>Curriculum</u>		
Yrs. of Coed P.E.	0	0
Single Sex Classes	75% or more	All
Impact of Title IX		
Changes to Comply	Curric. rev. in progress	Scheduling rev. in progress
	Wt. machine accessible to girls	
Problems Complying	None, just delayed	None
Changes to be Made		
P	Coed classes, girls' lockerroom	Coed classes
MT	Coed classes	Coed classes
FT	Coed classes	Coed classes
Sources of Information		
P	AEA, DPI, prin. assoc.	HEW, DPI, ath. dir., mtgs.
MT	Little	Little, admin.
FT	Seminars, admin., ISEA	JOPER, <u>Update</u>
Know Title IX Coord.?		
P	Yes	Yes
MT	No	Yes
FT	Yes	Yes
S (% Yes)	5.7	3.8
Know Grievance Proc.?		
P	Yes	Yes
MT	No	Yes
FT	Yes	Yes
S (% Yes)	29.9	30.8
Info. Clear & Adequate?		
P	Yes	Adequate, not clear
MT	Don't know much about it	Know little about it
FT	No, confusing	Yes
Assistance Needed?		
P	No	No
MT	Info. on coed prog. & act.	Yes
FT	Yes	Yes, don't know what's available
Areas of Noncompliance	Sep. sex classes, different course offerings	Sep. sex classes, different offerings



All three schools in full compliance used letter grades for physical education, counted these grades in the grade point average, and required that students pass physical education each semester in order to graduate. One of the large schools, B, gave athletes the option of being exempt during their season of competition; the other two schools did not. Where the option was allowed, the principal reported that only about five percent of the athletes had chosen not to come to physical education class. As mentioned above, students in one of the large schools, A, could register for either a two day a week program or a daily program. Students at the other two schools met the equivalent of every other day.

All three schools in this category operated their physical education departments as single administrative units. Staffing patterns are indicated in Table 3.

Curriculum. The two large schools offered elective coeducational programs for a number of years--A for seven and B for five. They cited this as facilitating their compliance with Title IX. The small school, C, had a coeducational program for two years.

The two large schools, A and B, designated no single-sex sections for activities. Teachers reported, however, that within classes for contact sports, students were given a choice of participating in single-sex or mixed groups. In the small school, C, separate-sex sections were designated for classes in contact sports. The students' own reporting of the amount of time spent in coeducational groups during the 1977-78 school year was as follows.

Table 6  
 Student Report of Amount of Time in Coeducational Classes  
 Full Compliance Schools  
 (Question 22)

	School		
	A	B	C
All of the Time	64.3	92.1	80.0
More Than Half	14.3	6.0	20.0
Half	8.3	1.3	0.0
Less Than Half	3.6	0.7	0.0
None	9.5	0.0	0.0

Impact of Title IX. The only changes necessary in Schools A and B to reach compliance were revisions of some course descriptions to ensure that all offerings were open to students of both sexes. The major change necessary to reach compliance in school C was to schedule boys and girls into class at the same time. Previously girls and boys met on alternate days. The result was that two teachers had to be assigned each period to the larger group. None of the three schools acknowledged any problems in reaching compliance.

Principals from both of the large schools, A and B, cited examples where further improvements could be made to achieve more complete equality. The principal at School A identified attitude changes needed to overcome stereotyping and to reach a nearly equal enrollment of boys and girls in each class. The principal at School B explained the need for at least one more female staff member, and a desire to make the offices of the teachers accessible to students of

both sexes. Currently the offices are in the locker rooms. The principal from School C did not identify any needs for improvement.

The principals of these three schools cited a variety of sources of information about Title IX: the Federal government, the State Department of Public Instruction, local school central administration, and the district's physical education coordinator. Teachers in these schools learned about Title IX from their school administrators, the district physical education coordinator, and various notices. One male physical educator and department head, School A, claimed to be ignorant of Title IX. He allegedly paid no attention to the Regulations since he felt that his school was in compliance before the Regulations were issued. All three principals stated that the information they received was adequate and clear. Of the six teachers interviewed, however, only one female, School A, felt similarly. The other teachers had questions and sought clarification with the exception of the male mentioned above who claimed again that he had paid no attention to Title IX.

All three principals knew who the Title IX Coordinator was for their school and what the grievance procedure was in case of complaint. Two of the female teachers, Schools A and B, knew their coordinator, but not one of the male teachers had knowledge of this individual. The same two females knew the grievance procedure. One male had no idea. The other teachers did not know the specific procedures for Title IX, but said that they had an idea where they would go personally. Student knowledge about Title IX was as indicated in Table 7.

Table 7  
Student Knowledge About Title IX  
Full Compliance Schools

	School		
	A	B	C
Know What Title IX Is (Question 37)	22.6	35.1	3.3
Know Who Title Coordinator Is (Question 38)	8.3	12.6	0.0
Know Grievance Procedure (Question 39)	29.8	29.1	46.7

The principals provided information about Title IX to the teachers, and all three schools had held in-service sessions on Title IX. Information to students, however, was provided less directly. The primary means in the large schools, A and B, was to make notice in the student handbook about the access to courses. School C indicated no direct provision of Title IX information to the students. Students who claimed knowledge about Title IX in the full compliance schools were reported in Table 7.

None of the principals expressed a need for further assistance with the implementation of the Title IX Regulations, but the principal of School C suggested that it might be helpful to have a checklist a year from now to keep a progress check. The teachers in School A likewise expressed no need for assistance, but the teachers in Schools B and C all stated a desire to learn more about other programs and curricular resources.

Although neither the principals nor the teachers noted any inequities in the availability of facilities or equipment, the students were less certain of equality in these areas, as indicated in Table 8.

Table 8  
Student Perceptions of Equality of Facilities and Equipment  
Full Compliance Schools  
(Question 36)

	School		
	A	B	C
Believe Males Favored	19.0	17.2	10.0
Believe Females Favored	11.9	10.6	6.7
Believe Everything Equal	36.9	40.4	73.3
Unable to Determine	31.0	31.8	10.0

Only in the small school, C, was there perception by students of a clear sense of equality.

#### Partial Compliance Schools

Seven of the twelve schools were determined to be in partial compliance with the Title IX Regulations pertaining to physical education classes. Two of the schools were large, G and I; three were middle size, D, F, and J; and two were small, E and H. Three schools, D, H, and I, were classified as low by socioeconomic measures; two as middle, E and J; and two as high, F and G. By self-assessment, the political tone of the communities was labelled

as conservative to moderate by four schools, E, H, I, and J; as moderate by one school, D; as liberal by one school, F; and as covering the entire spectrum by one school, G.

Program administration. Both of the large schools, G and I, had elective programs, but the students registered for a specific teacher, period, and activity at only one of these, G. At the other, students registered only for a period and further subdivisions were done within the class. All of the other schools assigned the students by period to class. Three of the schools operated largely with team teaching, D, E, and F. One school, H, had just one male teacher to conduct the entire program in the district. All but one school, J, had mixed grade levels in their classes.

Five of the seven schools, D, E, F, I, and J, gave grades in physical education, but only one, J, averaged these into the grade point average. This school, however, did not require students to pass physical education to graduate. All other schools, including the two on pass-fail, G and H, required successful completion for graduation. Athletes were required to take physical education in all seven schools. The time in class varied widely among the seven schools from 45-60 minutes every other day, D, F, and I, to three hours per week, J, to two hours required with one optional, E, to two 49-minute periods per eight days, H, to 25 times per 60-day cycle, G.

All schools operated their physical education departments as single administrative units. See Table 4 for staffing patterns.

Curriculum. One large school, G, operated a coeducational elective program for ten years. This applied only to juniors and seniors, however, and the sophomores remained predominantly sex-segregated. This was largely by choice of the physical education teachers. The principal stated that from his vantage point, all courses were open to all students, and that once the students got to the gymnasium, it was the prerogative of the teachers to group them accordingly. The other large school, I, had a coeducational program for two years. A middle-size school, F, had moved toward a co-educational program for four years and essentially attained that state in the last two years. Three other schools, two middle size, D and J, and one small, H, had coeducational programs for two years. The 1977-78 school year was the first year of coeducational program for one small school, E.

For the most part it can be said that the principals were not totally aware of the curricular offerings, when the students were separated by sex, or under which circumstances. They were generally aware of separation for contact sports and condoned such separation. The separation that did exist in the schools was based largely on stereotypical views of girls and boys held by the physical education teachers. There did not appear to be any deliberate attempts to discriminate, but rather the motivation seemed to be a sense that the needs of the students for some activities were better met in single-sex settings.

The students' reporting of the amount of time spent in coeducational groups during the 1977-78 school year was as follows in Table 9.

Table 9  
 Student Report of Amount of Time in Coeducational Classes  
 Partial Compliance Schools  
 (Question 22)

	School						
	D	E	F	G	H	I	J
All of the Time	35.4	51.7	13.0	46.5	6.5	68.4	4.9
More Than Half	64.6	34.5	77.8	14.1	9.17	22.2	29.3
Half	0.0	10.3	5.6	11.1	80.6	6.8	46.3
Less Than Half	0.0	3.4	3.7	25.3	0.0	2.6	19.5
Not At All	0.0	0.0	0.0	3.0	3.2	0.0	0.0

There seemed to be a general interpretation problem with the portion of the Regulations pertaining to contact sports. For safety reasons, all but two of the schools, G and I, chose to offer contact sports in single sex settings. These schools did not, however, offer the same opportunities to both boys and girls to learn and participate in each activity. The usual pattern was for different sports to be offered. Schools largely chose to label soccer and field hockey as contact sports, although these were not labelled in the Regulations. Another aspect subject to question was the interpretation of the phrase of the Regulations allowing separation for contact sports "during participation." Most schools extended the separation to instruction as well as participation.

Impact of Title IX. All seven schools felt that they were in compliance with Title IX. Six schools indicated that they had made



changes in scheduling and extended coeducational offerings to comply. One school, J, said that it had had to make no changes because it was already in compliance. Two schools, G and F, added girls' locker room facilities; one, G, added a whirlpool for girls; one, J, began referring to the gymnasiums as large and small rather than boys and girls; one, D, purchased some additional equipment; and one, G, deleted references to girls and boys on the registration sheets. Not one principal reported any significant problems in complying, and only one principal, I, cited any problems at all. Those related to locker room supervision and accountability in student attendance and grades.

Four of the principals, D, E, F, and G, reported that there were no other changes needed at their schools. At two of these schools, D and E, both the male and female teachers cited inequities in the training and locker facilities for the girls. The female teacher at School G cited smaller locker facilities for the girls. The teachers at School F agreed with their principal that nothing further needed to be done. The other three principals cited these changes as still necessary: people should be informed so that they can grieve, H; one more female should be added to the staff, I; and the whirlpool and training room should be made more accessible to the girls, J.

None of the principals and none of the teachers recognized any shortcomings in the curriculum, which existed in all seven schools. Areas of noncompliance within the schools were as follows:

- D: Different uniform requirements for girls and boys.  
Some separate-sex activities:  
Girls--diet and exercise, flashball, kickball.  
Boys--soccer, weight lifting, football.  
Female teacher grades the girls and male grades the boys.  
Boys required to take showers; girls not.
- E: Separate-sex activities:  
Girls--weight lifting, dance, fitness and jogging, football.  
Boys--weight training, football, basketball, wrestling.
- F: Separate-sex activities:  
Girls--soccer, tumbling, field hockey, handball.  
Boys--football, tumbling, handball.
- G: Sophomore classes are separate.  
No boys in modern dance.  
Locker room differences--girls have hairdryers and private showers.
- H: Classes are separate-sex one semester and coeducational the next. No football taught to girls and no speedball taught to boys. Volleyball taught separately the first semester and taught again coeducationally.  
Boys required to take showers; girls not.
- I: Different uniform requirements for girls and boys.  
Separate-sex swimming classes.
- j: Separate-sex activities:  
Girls--handball, rope jumping, basic exercises, weight machine.  
Boys--handball, strength unit, weight machine.  
Female teacher grades girls and male teacher grades boys.

All seven schools in partial compliance had some single-sex classes in noncontact sports, although these were not necessarily designated as such on the master schedule.

Some of the more subtle areas of discrimination were not taken seriously. An example of this was voiced by a large-school principal, G, and represented an attitude that was fairly common among the administrators of the partially compliant group, an attitude of, "Equality is O.K., but let's not get extreme about it." The principal

from School G said:

The business of having everything exactly equal is very difficult. For example, should there be hairdryers in the boys' locker room because they are in the girls'? Should there be modesty showers in the boys' because they are in the girls'? Or should we rip the girls' out? Those are kinds of things best left ... nothing done. Once this whole thing is settled down that kind of stuff will probably blow over, because we're not going to install modesty showers in the boys' locker room. If it would come to a big fight, I suppose we would take the girls' out. I don't think it will probably come to that.

An attitude that prevails related to differential expectations for the sexes was voiced by a principal from a middle-size school, J:

I really wanted to dress up our girls' locker room--put carpeting in, have a real first-class place for young ladies. The reality is that the girls' locker room is kept up first class. It's their home away from home. The boys' is not kept up as nicely.

Another common attitude among people in this group, particularly among some of the teachers, was that equality was "right," but that equality could be attained as well or better separately. A male teacher from a large school, I, said:

Personally I would say that girls could still be in their own classes in the girls' gym. I'd like to see the girls' department and boys' department be separate, and then in certain situations bring them together. I would personally favor only about 20 percent coed. I think the girls and the guys would get more out of it.

It seems like I'm always making allowances for the girls. You can't expect the girls to achieve the same as the guys ...

The female department head from this same school, I, spoke similarly:

I feel strongly that there's a place for coed activities, but I do think that the interests of the fellows and girls are varied, and I'd like to have some single-sex classes. I'd rather go to court for not abiding by Title IX than because two fellows ran over a girl in a game.

She indicated that she expected to offer single-sex classes in the future, particularly slimnastics for girls.

A female teacher in another large school, G, defended keeping the sophomores separate for slightly different reasons:

Sophomores coming in have a hard enough time just being a sophomore. Cliques are already formed from some of the schools. If you are new and in a coed class, it's very hard to cope. I like keeping all the girls so they're forced to meet each other--forced to interact. I'm comfortable with the way it is, and I see nothing wrong with it.

She went on to say that self-defense in particular was best taught separately at the sophomore level: "It's hard enough talking to the girls about certain things. I don't feel comfortable saying it in front of the boys yet."

The middle-size and small schools utilized team teaching to a much greater extent than the large schools. With a male and a female teacher assigned each period, schools had built-in flexibility to separate groups by sex for certain units. Teachers expressed a fear of having this flexibility removed and of being forced to be coed "all the time."

As with the principals from the schools in full compliance, those in partial compliance received information about Title IX from a variety of sources: the Federal government, State Department of Public Instruction, Area Education Agencies, central administration of local school districts, principals' association, printed literature, and seminars. Teachers cited primarily material received from school district administrators. Only one teacher mentioned professional

literature. All of the principals thought the information to be adequate, and all but one, G, found it to be clear. Two teachers, D and E, did not feel that they had received adequate information, and one teacher, E, reported that he had not studied the material he had received.

Three of the seven principals, D, H, and J, did not know who the Title IX Coordinator was for the school. Two of these, H and J, were uncertain about a grievance procedure, while the other, E, said there was one on file, but that he had not read it. Eleven of the thirteen teachers could not identify the Title IX Coordinator for their school. Only the man and woman from School G were able to do so. Essentially the same response was given to the question about the grievance procedure. The two teachers from School G and the female teacher from School I (both large schools) were affirmative. Six of the teachers said that they knew where they probably would go; whereas four simply had no idea (male and female from E, male from F, and male from H).

Five of the seven principals, D, E, F, G, and I, said that material had been presented to teachers on Title IX. One, H, indicated that there had been "passive dissemination" of information, and one, J, had done nothing because, "There was no need to; we were already doing everything." Only the two large schools, G and I, had held in-service sessions.

There was no report of direct information to the student body. One principal, E, reported that he had discussed coeducational classes

with the student council, and one principal, F, said that information was posted on the bulletin board "if they cared to look at it." As with the students from the schools in full compliance, this lack of direct information was reflected in their responses to questions 37, 38, and 39 of the questionnaire. See Table 10.

Table 10  
Student Knowledge About Title IX  
Partial Compliance Schools

	School						
	D	E	F	G	H	I	J
Know What Title IX Is (Question 37)	16.7	24.1	33.3	39.4	9.7	25.6	22.0
Know Who Title IX Coordinator Is (Question 38)	8.3	0.0	1.9	13.1	9.7	6.0	7.3
Know Grievance Procedure (Question 39)	33.3	55.2	33.3	36.4	32.3	44.4	56.1

None of the principals expressed a need for further assistance with the implementation of the Title IX Regulations. Only two teachers (male from G and female from J), however, stated no need for assistance. The other eleven teachers all desired further information on curricular ideas, attitudes of students, experiences of other schools, and resources for teaching.

Inequities in facilities and equipment noted by principals and teachers were not deemed by these groups to be a major problem. Once again the students were largely mixed in their perceptions of

equality in these areas, as indicated in Table 11. With one exception, H, a small school, the students in this group, to a much larger extent than those from the full compliance group, indicated that the facilities and equipment were superior for the males.

Table 11  
Student Perceptions of Equality of Facilities and Equipment  
Partial Compliance Schools  
(Question 36)

	School						
	D	E	F	G	H	I	J
Believe males favored	16.7	20.7	38.9	34.3	0.0	29.1	29.3
Believe females favored	4.2	3.4	9.3	5.1	6.5	12.0	12.2
Believe everything equal	64.6	69.0	38.9	37.4	51.6	29.1	43.9
Unable to determine	14.6	6.9	13.0	22.2	38.7	28.2	14.6

#### Noncompliance Schools

Two of the twelve schools, K and L, were determined to be in a state of noncompliance with the Title IX Regulations in physical education for the 1977-78 school year. Both of these schools were of middle socioeconomic status, and both were rated conservative in political tone by their school personnel. One school was middle size, K, and one was small, L.

Program administration. In both of these schools, students registered for a physical education activity and period. The girls, however, had a much broader range of activities to choose from in

both schools. Both schools offered physical education two times every six days. The students were not graded in the middle-size school, K, but grades were given in the small school, L. Neither school counted the physical education grades in the grade point average or required students to pass physical education in order to graduate. The middle size school, K, exempted some athletes from class, but the small school did not. Grade levels were mixed in both schools.

Both schools had a single physical education department. See Table 5 for staffing patterns.

Curriculum. Neither school had implemented a coeducational program, although both had very limited experience with coeducational classes for selected activities. One school, K, offered one section of coeducational classes this year due simply to scheduling difficulties. Both principals indicated that classes would be coeducational next year. Curriculum revisions were underway in both schools. The separate-sex curriculums in operation in both schools provided a broader program with more opportunities for student choices for the girls than for the boys. The responses of the students reflected the small amount of time spent in coeducational classes as noted in Table 12.



Table 12  
 Student Report of Amount of Time in Coeducational Classes  
 Noncompliance Schools  
 (Question 23)

	School	
	K	L
All of the Time	5.7	0.0
More Than Half	2.3	0.0
Half	17.2	0.0
Less Than Half	69.0	3.8
Not At All	5.7	96.2

Impact of Title IX. The failure to have coeducational classes represented the principal area of noncompliance in both schools. Neither of the principals cited any unusual circumstances which had prevented earlier implementation, but both simply stated that they had waited. One school, K, had made a change to make the weight machine accessible to the girls. The principal in School K also noted that the girls' locker-room facilities were much smaller, but neither of the teachers mentioned this as a problem.

The principals had received information about Title IX from the same sources as those in the other groups: Federal government, Department of Public Instruction, Area Education Agencies, Principals' Association, and other meetings. The male teachers from both schools indicated very little knowledge or information about Title IX. One female teacher, K, had received her information from the school

administration, the Iowa State Education Association, and seminars. The other female, L, had gotten most of her information from professional physical education publications. Both principals thought that the information had been adequate, but one, L, found it unclear and contradictory. Only one female teacher, School K, found the information to be adequate and clear.

Both principals knew who the Title IX Coordinator was for their school and what the grievance procedure was. Only the male teacher from School K did not know this information. Both principals indicated that material had been given to the teachers. Neither school had held specific in-service sessions on Title IX, although School L had discussed it in preschool workshops.

Neither principal was sure that the students had been informed. One, School K, said that the grievance procedure had been published in the student handbook. Student responses to questions 37, 38, and 39 on the questionnaire were reported in Table 13.

Table 13  
Student Knowledge About Title IX  
Noncompliance Schools

	School	
	K	L
Know What Title IX Is (Question 37)	16.1	15.4
Know Who Title Coordinator Is (Question 38)	5.7	3.8
Know Grievance Procedure (Question 39)	29.9	30.8

Neither of the principals expressed a need for further assistance. All four teachers, however, indicated a desire for more information about coeducational programs, what to do and how to prepare.

As with the students in the other two groups, there were mixed responses regarding the equality in facilities and equipment. As noted earlier, the principal from School K indicated smaller locker-room facilities for the girls. Students apparently did not share this view. See Table 14.

Table 14  
Student Perceptions of Equality of Facilities and Equipment  
Noncompliance Schools  
(Question 36)

	School	
	K	L
Believe Males Favored	16.1	23.1
Believe Females Favored	19.5	0.0
Believe Everything Equal	39.1	65.4
Unable to Determine	23.0	11.5

Once again the students in the small school, L, were more apt to view their facilities and equipment as being equal.

#### Perceptions Held of Programs

##### Principals

The data presented in this section were taken from responses to the interview schedule in parts (b) Curriculum, (c) Impact of Title IX

on Program Administration and Curriculum, (d) Summary Comments, and (e) Personal and Community Background.

The responses to the specific questions (see Appendix) were grouped into the following categories: (a) Background Characteristics, (b) Personal Views of Changes, (c) Effects of Title IX on Program Focus, Objectives, and Quality, (d) Positive Aspects, (e) Negative Aspects, (f) Perceptions of Equality, (g) Complaints, (h) Safety and Liability Concerns, (i) Discipline, (j) Perceptions of Student Reactions, and (k) Implications for the Future.

For reference purposes a summary of schools by compliance level and size was included in Table 15.

Table 15  
Summary of Schools

	Compliance Level			Size		
	Full	Partial	Non	Large	Middle	Small
A	X			X		
B	X			X		
C	X					X
D		X			X	
E		X				X
F		X			X	
G		X		X		
H		X				X
I		X		X		
J		X			X	
K			X		X	
L			X			X

Background characteristics. The twelve principals of the schools in this study were a group of males; eleven of whom were white and one of whom was black. Seven of the men were in their forties, four were in their thirties, and one was in his fifties. All but one of the group had graduated from an Iowa high school, and seven had received all of their degrees from institutions within the state. Four had received degrees from both in-state and out-of-state institutions. Only one man was not a native of the state and had not attended any institutions in the state.

Four of the men had undergraduate degrees in physical education, and only these four had ever taught physical education. The degrees of the other men covered the whole spectrum of possible majors. The four physical education majors and one of the math majors were the only ones with coaching experience. Three of the men had doctoral degrees, while the remainder all had master's degrees.

All of the men were married, and the wives of eight were employed outside the home. All had more than one child, but there were no girls in five of the families. The average ratio of children for the entire group was 1.8 boys and 1.0 girls.

Personal views on changes. The personal views of the principals toward the changes brought to physical education programs and to co-educational programs in particular were very positive. Only one individual said that he had mixed feelings, but that they were mostly positive, and one individual claimed to have no feeling one way or the other, but all of the rest were extremely favorable. The

following comments from principals in the full compliance schools were characteristic of the feelings of the group as a whole:

I think we were stupid for so many years that we didn't have it (coed). It's one of the best things that's happened to our system--not only in physical education, but in everything else. I see our kids having a lot more fun in P.E. Kids like to mix by sex and that's part of the plan of things .... (A)

I think they're terrific. I've been down several times to watch activities in the gym. (B)

I think it's great. I have no quarrel with it at all. We put it in a year before we had to, so that says something about my philosophy. (C)

The principal with the mixed feelings, School I, had concerns about increased administrative difficulties with which to contend, but he admitted that in terms of the students, the program was much better and should have been that way a long time ago. The principal who claimed to have no feelings explained his stance this way:

From a physical education standpoint, I don't think it makes a bit of difference. From a sociological standpoint, from a psychological standpoint, the times we're in, it's a reasonable direction to go, and I don't have any objection whatsoever of doing it .... (G)

Both of these men were from schools in partial compliance. The principals from the noncompliance schools both expressed positive views.

Effect on program focus, objectives, and quality. The opinions were mixed with respect to the amount of impact that Title IX and the coeducational program had had on the focus and objectives and quality of their physical education programs. Only one individual, Principal K, from a school that had not yet initiated coeducational classes, stated that he thought there might be a decline in program quality

initially, but that in the long run it should improve. Eight of the principals indicated that the focus and objectives of their programs had changed, but three of these, Schools A, C, and E, were not willing to attribute the changes to the coeducational program alone. They, along with the four who indicated no change, B, G, H, and J, said that their programs were already moving or had moved away from team sports and "throw out the ball" to an emphasis on lifetime sports and carry-over activities. Two of the principals wanted to credit the high quality of the physical education teachers in their schools with successful changes in the programs.

Positive aspects. Positive aspects of the coeducational programs identified by the principals fell into three major categories: social values, broader course offerings, and improved teaching. Comments about the social values came up repeatedly throughout the interviews:

Kids enjoy being mixed. Theoretically maybe this will help the divorce rate. Men and women will learn not only to work together but to play together, and physical education can play a big part here. (A)

It gives the student a more rounded education--more true to life. (I)

That's the way we live in the world. Why should it be different in physical education? (E)

Males and females have gained respect for each other, working with each other and actively participating in physical activity together. (D)

Without exception, the comments referring to broader course offerings were based on an increased emphasis on lifetime and carry-over activities and a decrease in team sports. Some of the principals had rather strong feelings about the place of team sports in physical

education:

I would like to see them get into life activities ... teach them to use leisure time in a constructive manner, not in basketball. (B)

We're looking for activities that both males and females can participate in. This old business of throwing out the ball for three-on-three basketball can't do anymore! (D)

I'm opposed to using basketball in P.E.--totally opposed to it. (J)

Comments related to improved teaching cited an increased emphasis on skill instruction and on creative planning for classes. Again reference was made about the elimination of the "throw out the ball" approach to teaching.

Other positive effects of programs were cited as (a) improved aspiration levels and confidence levels of the girls in physical performance, A and I; (b) improved student evaluation procedures, K; (c) improved student attitudes toward physical education, L; and (d) improved behavior on the part of the boys, E.

Negative aspects. Seven of the principals could identify no negative aspects or problems caused by Title IX for them in physical education. The most frequent response from those who expressed negative views was an objection to the federal government mandating local district policy. The objection was based on the principle of local control, rather than on the substantive part of Title IX. Other negative aspects identified by single individuals included boys being forced to hold back in classes, turmoil being caused in some families due to changes in tradition, weaker students becoming



disenchanted with physical education, problems with administrative matters of attendance and evaluation, and difficulty dealing with the problem that girls have different bodies than boys.

Perceptions of equality. Ten of the twelve principals stated unequivocally that Title IX and the coeducational classes had resulted in more equitable physical education programs. The remaining two principals were not convinced that the programs were inequitable before. One of the men stated his feelings this way:

I'm not sure they were inequitable before. That's the part that has always bothered me about Title IX. Frankly the women's department has gotten more because they seemed to have more varied ideas. I don't think the girls were discriminated against in this school even when they were separate. (F)

Four of the principals, F, H, K, and L, indicated that it was the boys' program that had improved as a result of the coeducational curriculum.

Complaints. Only one principal, I, indicated that there had been any change in the number of complaints he had received about physical education since the program had become coeducational, and that was "a few more."

Safety and liability. Principal I was the only one who had any increased concerns about safety and liability. The others indicated that they were simply taking the same care and precautions as always.

Discipline. One further difference expressed by Principal I as compared to the others had to do with discipline problems with co-educational classes. He indicated that such problems increased slightly; these were related primarily to attendance. Five principals, A, B, G, H, and J, said that there had been no change in the

number of discipline problems, but six principals, C, D, E, F, K, and L, indicated that discipline had actually improved with the coeducational classes. This improvement was described as follows:

I think the boys are more gentlemanly with the girls and the girls a little more lady-like--at least I'd like to think that they are. (D)

I think the behavior of the boys is tempered when they're mixed with girls; whereas boys strictly by themselves might have a tendency to roughhouse and be rowdy. (F)

Perception of student reactions. The principals' perceptions of the students' reactions were largely positive. Seven stated that the students were very favorable toward and liked the coeducational classes. Mention was made of a few initial complaints when the programs started, but all said that time had taken care of these. One principal said that he thought the students were generally positive, but that each sex liked to be alone for certain activities. A similar view was expressed by another principal:

One complaint has been from the guys who have had to restrict themselves. The way we compensate for that is to have a free day every once in a while. The guys always like to play dodgeball. I can't understand that. It's almost murder out there. (C)

There were four principals who said that they had not heard any comments from anyone, either in favor of or opposing coeducational physical education experiences.

Implications. The most frequent projection made by the principals for future physical education programs was an increase in attention to carry-over activities, A, B, E, F, and H. Three of the principals saw physical education evolving into more of a discipline

of its own, comparable to other school subjects and further away from athletics. Two foresaw more health education emphasized; and one predicted that there would be fewer and fewer coeducational programs in the future.

### Teachers

The data presented in this section were taken from responses to the interview schedule in parts (b) Curriculum, (c) Impact of Title IX on Program Administration and Curriculum, (d) Summary Comments, and (e) Personal and Community Background.

The responses to the specific questions were grouped into the following categories: (a) Background Characteristics, (b) Personal Views on Changes, (c) Impact on Program Focus, Objectives, and Quality, (d) Positive Aspects, (e) Negative Aspects, (f) Perceptions of Equality, (g) Complaints, (h) Safety and Liability, (i) Discipline, (j) Rule Adaptations, (k) Emphasis on Skills, (l) Emphasis on Fitness, (m) Perceptions of Student Reactions, (n) Professional Preparation Recommendations, and (o) Implications for the Future. See Table 15 for information on school size and compliance level.

Background characteristics. Twelve males and eleven females were interviewed. There was a member of each sex from each school except in the case of one school where a male was the only staff member. As a group, the female teachers tended to be younger than the males. Seven of the females were in their twenties, three were in their thirties, and one was in her forties. By contrast there were four males in their twenties, four in their thirties, three in

their forties, and one in his fifties. Ten of the twelve males and ten of the eleven females had graduated from Iowa high schools.

All of the females had majored in physical education at the undergraduate degree; this was true of nine of the males. Six of the males had received a master's degree, three in physical education, while two of the females had received a master's degree, both in physical education. Ten of the females had done all of their college work in the state of Iowa; one had done a combination of in-state and out-of-state work. Seven of the males had done all of their college work in the state; two had done a combination of in-state and out-of-state work; three had done all of their college studies out-of-state.

Eleven of the twelve men were married, compared to four of the eleven women. Ten of the men had children, with boys outnumbering girls in the average family 2.0 to .9. Two of the women had children, with the average family size being 1.5 boys and .5 girls. The spouses of five of the men were employed, while the spouses of all of the women were employed.

All of the men and all of the women were involved in coaching.

Personal views on change. The personal views of the teachers toward the changes brought to physical education programs, and to coeducational programs in particular, by Title IX were generally positive. More than half of the men and women expressed unqualified support for the changes. About a fourth of the men and women held some reservations about the extent of implementation of coeducational

classes, most feeling that certain situations warranted separation of the sexes. One male and two females definitely preferred single-sex classes, and one male said that it didn't matter to him one way or the other. Selected responses of the positive group were:

We just never would go back to all-girl classes. Schools that haven't tried coed are missing so much. It's a mistake of some schools to even offer a choice. You need all coed to be successful because they come up in such a traditional thing. (F.T., A)

At first I really wasn't that much in favor of it, but this is my second year with the program, and I think it's worked out very well. I think it's good, and I have no objections whatsoever. (M.T., D)

I'm definitely in favor of it. There is no reason for separate-but-equal. It's ridiculous if you're going to live in a society where the sexes mingle all the time anyway. (M.T., E)

Those who were ambivalent cited needs of boys to have outlets for their aggressiveness and not be held back by the girls, and needs of the girls to be able to work without being dominated by the boys. They preferred flexibility to work at various times in separate groups according to the needs and interests of the students.

The individuals most opposed believed in separate-but-equal programs and felt that coed classes only diminished the participation of both sexes. The feelings of this group were summarized by the following:

I'm not very much of a coed-type person. I don't see the need for it. I think there's enough social interaction in other places. I would prefer 20-25 percent coed at most. Boys are held back, and it's not a good experience for girls. (F.T., K)

Impact on program focus, objectives and quality. The feelings about the impact of Title IX and the coeducational classes on program focus and objectives and quality were mixed. In general, the males felt that there had been the greatest changes in the program. They cited a broader program, a common curriculum, and in particular more lifetime sports for the boys, resulting in much improved quality. This was consistent for nine of the male teachers. By contrast, only six of the females commented on improved quality in terms of curriculum. Three of these individuals stated that the improvements had affected the boys only. Teachers from three schools felt that their coeducational elective programs had so far preceded Title IX that they could not attribute changes to the law. They did feel that their programs resulted in an improvement in quality from what they had been before.

Positive aspects. The positive aspect of the coeducational program mentioned most frequently by both males and females was related to social factors:

It's good for socializing, not being so embarrassed and shy about the opposite sex. Get to know each other in a relaxed situation. (F.T., D)

The social relationships--they find that they can be friends. (F.T., F)

It's the greatest thing we can do. Ninety-six percent get married. We are social animals and are going to have to learn to get along with each other. (M.T., G)

The second most frequent aspect identified by the males as a positive result related to improved instructional planning and techniques:

It's become more innovative. It forces teachers who would not normally do much to change. (M.T., D)

It's more of a learning situation; more work on skills and more tests. (M.T., E)

Females, on the other hand, named improved motivation, attitudes, and cooperation second most frequently.

Other positive aspects expressed by the teachers included (a) expanded curricular opportunities for the boys, (b) appreciation of the girls' skill level by the boys, and (c) appreciation of their own physical potential by the girls.

Negative aspects. Six of the male teachers identified no negative aspects or problems with the coeducational program compared to two female teachers. The concerns named covered a variety of areas with no grouping by either the males or females. Concerns included: (a) inability of the girls to react properly in game situations (hold back too much), (b) inability of the boys to go "all-out" in the coeducational activities, (c) objections to being forced to have coeducational programs, (d) problems with organizational and administrative matters, (e) larger classes, (f) lack of respect by the boys for female teachers, (g) poorer attitudes on the part of the students, and (h) general adjustment problems between males and females.

Perceptions of equality. Despite the numerous problems identified, the majority of the teachers felt that the coeducational programs were more equitable. Ten of the twelve males and nine of the eleven females concurred on this, and expressed support for Title IX. Those disagreeing felt that equal opportunity could be attained in separate classes.

Complaints. The majority of both the male and female teachers indicated that there was no increase in the number of complaints that they had received with respect to coeducational programs. Three men and four women indicated that they had received a few more complaints initially, but that there were no overall problems. The teachers from the schools yet to implement coeducational programs anticipated that they would receive more complaints.

Safety and liability. There was considerable difference of opinion between the men and women teachers with regard to safety and liability. Nine of the men stated that they had no additional concerns, and that they exerted the same precautions as in a single-sex class. Six of the females, however, expressed increased concerns. The size and strength of the boys and their aggressiveness in activity were the basic sources of concern. One teacher said that all contact sports had been eliminated from their curriculum because of this. Another teacher indicated some games had been modified as a precaution. Still another teacher expressed her concerns this way:

I think the boys need to be reminded that these are girls and are a little more fragile. They need to be more cautious than if playing with just boys.  
(F.T., D)

Discipline. There were also considerable differences of opinion between the men and women teachers related to the number of discipline problems in class. Seven of the men said that they had fewer discipline problems than before, two said that there was no difference, and three said that there were a few more problems in the coeducational classes. By contrast, six of the women stated that they had



more discipline problems, three indicated no difference, and two indicated fewer problems. The women described their increased problems as follows:

Discipline is a lot tougher for me. Girls cooperate a lot more easily. It's harder with the guys. I find myself more of a nagging teacher. I do a lot more complaining and disciplining of kids than ever before. I feel more like a drill sergeant. (F.T., C)

I think I have more control with just the girls--that I get more across to them--that I don't have to interrupt myself every five minutes or so. (F.T., D)

I expect more problems. I have a real sour feeling of boys in P.E. It just seems that when they get in P.E. they're just wild. (F.T., K)

The men who indicated increased problems attributed them to the difficulty of getting the girls to participate and to the students' trying to show off for the opposite sex. Peer pressure in a social situation, however, was the reason given by most teachers for fewer discipline problems.

Rule adaptations. Another area in which the teachers were divided in opinion was the use of rule adaptations or modifications for coeducational classes. Six of the eleven women opposed any compensatory treatment for girls through rule adjustments. They felt that this would be demeaning to the girls as well as unfair to the boys. The five women who favored some modifications did so for two different reasons: ensuring participation for the girls in the activities and protecting the girls from injury in the activities. Only four of the men were opposed to modifications, for basically the same reasons as the women. As one male teacher, I, said, "My philosophy is that we are liberated now."

The men who favored the modifications did so more for guaranteeing equal opportunities to participate than for protecting for safety reasons.

Emphasis on skills. The amount of attention given skills instruction and drills in coeducational activities compared to the single-sex classes was perceived differently by the men and women. Six of the women indicated that their teaching experiences in coeducational classes included less attention to skills work. Only one male expressed this viewpoint. The following comment summarizes the views of this group:

The department spends little time on skills. We do more babysitting; we just want to keep them active. If I had all girls in class, I'd probably do more. They'd be more receptive; I could get by with it. The boys are too hyper--they don't have time--they just want to play-play. (F.T., B)

The two women who indicated that the emphasis was the same as before in their classes pointed out that there were sometimes difficulties with the boys because they weren't used to working on skills. Five of the men said that they were spending more time on skill instruction than previously; one indicated less time, and the others indicated no change.

Emphasis on fitness. Teachers were also asked whether the coeducational classes had any more or less attention to physical fitness. Responses were widely varied with no patterns emerging. There were no sex differences in the responses to this item.

Perceptions of student reactions. The teachers' perceptions of the student reactions to the coeducational classes were that the

students were enjoying the program. Males and females alike shared this view. Both sexes further agreed that (a) boys in the classes sometimes were held back, (b) some girls were sensitive about their appearance and their ability and thus held back, and (c) the aggressiveness of some girls was improved in the coeducational setting.

Professional preparation recommendations. Recommendations from teachers about professional preparation reflected a general feeling of inadequacy about their own programs for teaching coeducational classes. The suggestion made most frequently by the men was that professional preparation programs themselves needed to be coeducational with all activities taught to both sexes. The women most frequently suggested that programs include specific ideas for (a) teaching progressions in coeducational classes, (b) appropriate coeducational activities, (c) motivation, and (d) resource guides in general. Early exposure to coeducational classes, visitation with teachers of coeducational classes, student teaching in coeducational classes, and attention to boy-girl relationships in classes were all suggestions made by both men and women.

Implications for the future. The teachers were able to project very few implications for the future. The most common response among both the men and the women was that the programs would continue to move away from traditional activities to lifetime and recreational activities. Three teachers were pessimistic about the future of physical education, citing lack of administrative support, budgetary cutbacks, and deterioration of programs. Two teachers felt that programs would return to single-sex classes.

Students

The data in this section were taken from the questionnaire administered to the students in grades ten through twelve in each school. Tables 16 through 54 report the statistical treatment of the questionnaire items. A chi square analysis was used with significance considered to exist at the .05 level.

In addition to examination of the student data by the total group, analysis was done of the data by (a) sex, (b) school size, and (c) compliance level.

Table 16  
Question 1. Archery

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<u>TOTAL GROUP:</u>			
	Coed	89.7	
	Separate	10.0	
 <u>BY SEX:</u>			
	<u>Male</u>	<u>Female</u>	
Coed	90.0	89.4	
Separate	9.5	10.6	
	Chi Square = 2.21735		3df
			Sig = 0.5285
 <u>BY SCHOOL SIZE:</u>			
	<u>Small</u>	<u>Medium</u>	<u>Large</u>
Coed	88.8	83.9	92.9
Separate	11.2	15.7	6.9
	Chi Square = 16.63048		9df
			Sig = 0.0548
 <u>BY COMPLIANCE LEVEL:</u>			
	<u>Non</u>	<u>Partial</u>	<u>Full</u>
Coed	77.9	88.3	97.0
Separate	21.2	11.5	3.0
	Chi Square = 38.50119		9df
			Sig = 0.0000

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Table 17  
Question 2. Badminton

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TOTAL GROUP:

Coed	90.1
Separate	9.8

BY SEX:

	<u>Male</u>	<u>Female</u>
Coed	91.5	88.7
Separate	8.3	11.3

Chi Square = 3.07621    2df    Sig = 0.2148

BY SCHOOL SIZE:

	<u>Small</u>	<u>Medium</u>	<u>Large</u>
Coed	88.8	82.2	94.5
Separate	11.2	17.8	5.3

Chi Square = 28.10114    6df    Sig = 0.0001

BY COMPLIANCE LEVEL:

	<u>Non</u>	<u>Partial</u>	<u>Full</u>
Coed	75.2	89.5	97.4
Separate	24.8	10.3	2.6

Chi Square = 45.27870    6df    Sig = 0.0000

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Table 18  
Question 3. Basketball

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TOTAL GROUP:

Coed	43.4
Separate	56.5

BY SEX:

	<u>Male</u>	<u>Female</u>
Coed	49.0	37.7
Separate	50.8	62.3

Chi Square = 11.60068    2df    Sig = 0.0030

BY SCHOOL SIZE:

	<u>Small</u>	<u>Medium</u>	<u>Large</u>
Coed	31.9	32.6	51.7
Separate	68.1	67.4	48.1

Chi Square = 32.09335    6df    Sig = 0.0000

BY COMPLIANCE LEVEL:

	<u>Non</u>	<u>Partial</u>	<u>Full</u>
Coed	41.6	32.7	60.8
Separate	58.4	67.1	39.2

Chi Square = 54.07843    6df    Sig = 0.0000

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Table 19  
Question 4. Bowling

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TOTAL GROUP:

Coed	93.7
Separate	6.3

BY SEX:

	<u>Male</u>	<u>Female</u>
Coed	93.8	93.7
Separate	6.3	6.3

Chi Square = 0.01632    1df    Sig = 0.8983

BY SCHOOL SIZE:

	<u>Small</u>	<u>Medium</u>	<u>Large</u>
Coed	98.3	90.4	94.2
Separate	1.7	9.6	5.8

Chi Square = 8.59668    3df    Sig = 0.0352

BY COMPLIANCE LEVEL:

	<u>Non</u>	<u>Partial</u>	<u>Full</u>
Coed	89.4	91.9	98.5
Separate	10.6	8.1	1.5

Chi Square = 16.35991    3df    Sig = 0.0010

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Table 20  
Question 5. Field Hockey

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TOTAL GROUP:

Coed	44.2
Separate	55.5

BY SEX:

	<u>Male</u>	<u>Female</u>
Coed	50.0	38.4
Separate	49.5	61.6

Chi Square = 13.23931    3df    Sig = 0.0041

BY SCHOOL SIZE:

	<u>Small</u>	<u>Medium</u>	<u>Large</u>
Coed	31.0	26.5	56.5
Separate	69.0	73.0	43.2

Chi Square = 69.57654    9df    Sig = 0.0000

BY COMPLIANCE LEVEL:

	<u>Non</u>	<u>Partial</u>	<u>Full</u>
Coed	29.2	32.2	69.4
Separate	69.9	67.5	30.6

Chi Square = 110.56026    9df    Sig = 0.0000

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Table 21  
Question 6. Fitness and Conditioning

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TOTAL GROUP:

Coed	49.6
Separate	50.3

BY SEX:

	<u>Male</u>	<u>Female</u>
Coed	62.0	37.2
Separate	37.8	62.8

Chi Square = 50.68918    2df    Sig = 0.0000

BY SCHOOL SIZE:

	<u>Small</u>	<u>Medium</u>	<u>Large</u>
Coed	34.3	35.7	60.5
Separate	65.5	64.3	39.2

Chi Square = 52.34901    6df    Sig = 0.0000

BY COMPLIANCE LEVEL:

	<u>Non</u>	<u>Partial</u>	<u>Full</u>
Coed	36.3	40.6	69.4
Separate	63.7	59.2	30.6

Chi Square = 65.01808    6df    Sig = 0.0000

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Table 22  
Question 7. Flag Football

TOTAL GROUP:

Coed	53.6
Separate	46.0

BY SEX:

	<u>Male</u>	<u>Female</u>
Coed	56.0	51.3
Separate	43.8	48.2

Chi Square = 2.05038    2df    Sig = 0.3587

BY SCHOOL SIZE:

	<u>Small</u>	<u>Medium</u>	<u>Large</u>
Coed	34.5	46.1	62.3
Separate	65.5	53.0	37.5

Chi Square = 38.99600    6df    Sig = 0.0000

BY COMPLIANCE LEVEL:

	<u>Non</u>	<u>Partial</u>	<u>Full</u>
Coed	46.9	43.9	71.7
Separate	53.1	55.4	28.3

Chi Square = 55.31728    6df    Sig = 0.0000

Table 23  
Question 8. Folk Dance

---

TOTAL GROUP:

Coed	92.1
Separate	7.3

BY SEX:

	<u>Male</u>	<u>Female</u>
Coed	93.3	91.0
Separate	6.0	8.5

Chi Square = 2.88377    3df    Sig = 0.4099

BY SCHOOL SIZE:

	<u>Small</u>	<u>Medium</u>	<u>Large</u>
Coed	92.2	92.2	92.0
Separate	6.9	7.0	7.5

Chi Square = 3.00458    9df    Sig = 0.9641

BY COMPLIANCE LEVEL:

	<u>Non</u>	<u>Partial</u>	<u>Full</u>
Coed	87.6	91.2	95.5
Separate	9.7	8.6	4.2

Chi Square = 16.54477    9df    Sig = 0.0563

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Table 24  
Question 9. Golf

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TOTAL GROUP:

Coed	87.8
Separate	12.0

BY SEX:

	<u>Male</u>	<u>Female</u>
Coed	89.8	85.9
Separate	10.0	14.1

Chi Square = 4.07394    2df    Sig = 0.1304

BY SCHOOL SIZE:

	<u>Small</u>	<u>Medium</u>	<u>Large</u>
Coed	93.1	80.9	90.0
Separate	6.9	19.1	9.8

Chi Square = 16.90736    6df    Sig = 0.0096

BY COMPLIANCE LEVEL:

	<u>Non</u>	<u>Partial</u>	<u>Full</u>
Coed	77.9	85.7	95.5
Separate	22.1	14.1	4.5

Chi Square = 27.73033    6df    Sig = 0.0001

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Table 25  
Question 10. Gymnastics

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TOTAL GROUP:

Coed	57.5
Separate	42.4

BY SEX:

	<u>Male</u>	<u>Female</u>
Coed	72.3	42.7
Separate	27.5	57.3

Chi Square = 73.04253    2df    Sig = 0.0000

BY SCHOOL SIZE:

	<u>Small</u>	<u>Medium</u>	<u>Large</u>
Coed	42.2	43.0	68.7
Separate	57.8	57.0	31.0

Chi Square = 56.16130    6df    Sig = 0.0000

BY COMPLIANCE LEVEL:

	<u>Non</u>	<u>Partial</u>	<u>Full</u>
Coed	39.8	50.4	76.2
Separate	60.2	49.4	23.8

Chi Square = 62.64299    6df    Sig = 0.0000

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Table 26  
Question 11. Modern Dance

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TOTAL GROUP:

Coed	88.3
Separate	11.2

BY SEX:

	<u>Male</u>	<u>Female</u>
Coed	92.0	84.7
Separate	7.3	15.0

Chi Square = 14.15596    3df    Sig = 0.0027

BY SCHOOL SIZE:

	<u>Small</u>	<u>Medium</u>	<u>Large</u>
Coed	85.3	90.9	87.8
Separate	13.8	8.3	12.0

Chi Square = 6.94190    9df    Sig = 0.6432

BY COMPLIANCE LEVEL:

	<u>Non</u>	<u>Partial</u>	<u>Full</u>
Coed	84.1	86.9	92.5
Separate	13.3	12.9	7.5

Chi Square = 20.25249    9df    Sig = 0.0164

---

Table 27  
Question 12. Soccer

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TOTAL GROUP:

Coed	50.8
Separate	49.0

BY SEX:

	<u>Male</u>	<u>Female</u>
Coed	52.0	49.5
Separate	47.8	50.3

Chi Square = 2.50093    3df    Sig = 0.4751

BY SCHOOL SIZE:

	<u>Small</u>	<u>Medium</u>	<u>Large</u>
Coed	39.7	38.3	59.9
Separate	60.3	61.7	39.7

Chi Square = 38.41895    9df    Sig = 0.0000

BY COMPLIANCE LEVEL:

	<u>Non</u>	<u>Partial</u>	<u>Full</u>
Coed	45.1	38.9	71.7
Separate	54.9	60.6	28.3

Chi Square = 73.49338    9df    Sig = 0.0000

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Table 28  
Question 13. Softball

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TOTAL GROUP:

Coed	71.3
Separate	28.4

BY SEX:

	<u>Male</u>	<u>Female</u>
Coed	73.8	68.8
Separate	26.0	30.9

Chi Square = 4.36037    3df    Sig = 0.2251

BY SCHOOL SIZE:

	<u>Small</u>	<u>Medium</u>	<u>Large</u>
Coed	62.9	62.6	77.8
Separate	37.1	37.0	22.0

Chi Square = 25.48576    9df    Sig = 0.0025

BY COMPLIANCE LEVEL:

	<u>Non</u>	<u>Partial</u>	<u>Full</u>
Coed	60.2	64.9	86.0
Separate	39.8	34.6	14.0

Chi Square = 44.91064    9df    Sig = 0.0000

---



Table 29  
Question 14. Stunts and Tumbling

---

TOTAL GROUP:

Coed	63.4
Separate	36.3

BY SEX:

	<u>Male</u>	<u>Female</u>
Coed	77.3	49.5
Separate	22.5	50.3

Chi Square = 68.51004    3df    Sig = 0.0000

BY SCHOOL SIZE:

	<u>Small</u>	<u>Medium</u>	<u>Large</u>
Coed	50.9	44.8	76.1
Separate	49.1	54.8	23.7

Chi Square = 77.15341    9df    Sig = 0.0000

BY COMPLIANCE LEVEL:

	<u>Non</u>	<u>Partial</u>	<u>Full</u>
Coed	39.8	57.3	83.0
Separate	60.2	42.2	17.0

Chi Square = 79.86566    9df    Sig = 0.0000

---

Table 30  
Question 15. Swimming

---

TOTAL GROUP:

Coed	75.8
Separate	23.8

BY SEX:

	<u>Male</u>	<u>Female</u>
Coed	91.3	60.3
Separate	8.3	39.4

Chi Square = 107.74837    3df    Sig = 0.0000

BY SCHOOL SIZE:

	<u>Small</u>	<u>Medium</u>	<u>Large</u>
Coed	77.6	70.4	78.0
Separate	21.6	29.6	21.5

Chi Square = 9.08409    9df    Sig = 0.4295

BY COMPLIANCE LEVEL:

	<u>Non</u>	<u>Partial</u>	<u>Full</u>
Coed	66.4	69.7	89.4
Separate	33.6	29.8	10.2

Chi Square = 43.17302    9df    Sig = 0.0000

---

Table 31  
Question 16. Tennis

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TOTAL GROUP:

Coed	87.0
Separate	12.4

BY SEX:

	<u>Male</u>	<u>Female</u>
Coed	88.8	85.2
Separate	10.8	14.1

Chi Square = 4.07095    3df    Sig = 0.2539

BY SCHOOL SIZE:

	<u>Small</u>	<u>Medium</u>	<u>Large</u>
Coed	78.4	86.1	89.6
Separate	20.7	13.9	9.5

Chi Square = 13.79107    9df    Sig = 0.1300

BY COMPLIANCE LEVEL:

	<u>Non</u>	<u>Partial</u>	<u>Full</u>
Coed	77.0	85.2	94.0
Separate	23.0	14.3	4.9

Chi Square = 30.72702    9df    Sig = 0.0003

---

Table 32  
Question 17. Track and Field

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TOTAL GROUP:

Coed	60.7
Separate	39.0

BY SEX:

	<u>Male</u>	<u>Female</u>
Coed	69.0	52.3
Separate	30.3	47.7

Chi Square = 27.85753    3df    Sig = 0.0000

BY SCHOOL SIZE:

	<u>Small</u>	<u>Medium</u>	<u>Large</u>
Coed	47.4	43.5	72.7
Separate	51.7	56.1	27.1

Chi Square = 71.09514    9df    Sig = 0.0000

BY COMPLIANCE LEVEL:

	<u>Non</u>	<u>Partial</u>	<u>Full</u>
Coed	48.7	50.8	81.1
Separate	50.4	48.9	18.5

Chi Square = 75.23442    9df    Sig = 0.0000

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Table 33  
Question 18. Volleyball

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TOTAL GROUP:

Coed	84.5
Separate	15.3

BY SEX:

	<u>Male</u>	<u>Female</u>
Coed	81.0	87.9
Separate	18.8	11.8

Chi Square = 9.42424    3df    Sig = 0.0242

BY SCHOOL SIZE:

	<u>Small</u>	<u>Medium</u>	<u>Large</u>
Coed	85.3	82.2	85.4
Separate	14.7	17.4	14.4

Chi Square = 4.53941    9df    Sig = 0.8725

BY COMPLIANCE LEVEL:

	<u>Non</u>	<u>Partial</u>	<u>Full</u>
Coed	84.1	78.5	94.0
Separate	15.0	21.2	6.0

Chi Square = 36.28203    9df    Sig = 0.0000

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Table 34  
Question 19. Weight Training

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TOTAL GROUP:

Coed	41.5
Separate	58.4

BY SEX:

	<u>Male</u>	<u>Female</u>
Coed	47.3	35.7
Separate	52.5	64.3

Chi Square = 12.20955    2df    Sig = 0.0022

BY SCHOOL SIZE:

	<u>Small</u>	<u>Medium</u>	<u>Large</u>
Coed	21.6	25.7	54.5
Separate	78.4	73.9	45.5

Chi Square = 77.84325    6df    Sig = 0.0000

BY COMPLIANCE LEVEL:

	<u>Non</u>	<u>Partial</u>	<u>Full</u>
Coed	26.5	33.2	60.8
Separate	72.6	66.8	39.2

Chi Square = 69.87660    6df    Sig = 0.0000

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Table 35  
Question 20. Wrestling

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TOTAL GROUP:

Coed	30.2
Separate	69.4

BY SEX:

	<u>Male</u>	<u>Female</u>
Coed	44.3	16.1
Separate	55.5	83.4

Chi Square = 77.81996    3df    Sig = 0.0000

BY SCHOOL SIZE:

	<u>Small</u>	<u>Medium</u>	<u>Large</u>
Coed	15.5	24.8	36.6
Separate	84.5	74.3	63.2

Chi Square = 31.73491    9df    Sig = 0.0002

BY COMPLIANCE LEVEL:

	<u>Non</u>	<u>Partial</u>	<u>Full</u>
Coed	31.0	24.3	38.9
Separate	69.0	74.9	61.1

Chi Square = 20.85808    9df    Sig = 0.0133

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Table 36

## Question 21. Feelings about Coed Physical Education

TOTAL GROUP:

Very Good	42.9
Pretty Good	44.1
Not Very Good	10.3
Very Bad	2.8

BY SEX:

	<u>Male</u>	<u>Female</u>
Very Good	47.0	38.7
Pretty Good	42.5	45.7
Not Very Good	7.8	12.8
Very Bad	2.8	2.8

Chi Square = 8.66230    3df    Sig = 0.0341

BY SCHOOL SIZE:

	<u>Small</u>	<u>Medium</u>	<u>Large</u>
Very Good	22.4	37.0	51.0
Pretty Good	56.0	47.8	39.2
Not Very Good	15.5	12.6	7.8
Very Bad	6.0	2.6	2.0

Chi Square = 40.94864    9df    Sig = 0.0000

BY COMPLIANCE LEVEL:

	<u>Non</u>	<u>Partial</u>	<u>Full</u>
Very Good	31.9	34.8	60.0
Pretty Good	46.0	49.4	35.1
Not Very Good	17.7	11.9	4.5
Very Bad	4.4	3.8	0.4

Chi Square = 60.60361    9df    Sig = 0.0000



Table 37

## Question 22. Time in Coeducational Physical Education Classes

TOTAL GROUP:

All of the time	49.1
More than half	20.9
About half	11.7
Less than half	13.0
Not at all	5.3

BY SEX:

	<u>Male</u>	<u>Female</u>
All of the time	49.5	48.7
More than half	18.8	23.1
About half	13.3	10.1
Less than half	13.0	13.1
Not at all	5.5	5.0

Chi Square = 3.67880      4df      Sig = 0.4512

BY SCHOOL SIZE:

	<u>Small</u>	<u>Medium</u>	<u>Large</u>
All of the time	35.3	13.5	70.7
More than half	16.4	37.8	13.5
About half	24.1	16.1	6.2
Less than half	1.7	30.4	7.1
Not at all	22.4	2.2	2.4

Chi Square = 335.94165      12df      Sig = 0.0000

BY COMPLIANCE LEVEL:

	<u>Non</u>	<u>Partial</u>	<u>Full</u>
All of the time	4.4	40.3	81.9
More than half	1.8	32.9	10.2
About half	13.3	16.5	3.4
Less than half	54.0	9.3	1.5
Not at all	26.5	1.0	3.0

Chi Square = 490.31860      12df      Sig = 0.0000

Table 38

## Question 23. Recommendations for Class Organization

TOTAL GROUP:

a. Assign...groups and not worry about the number of boys and girls	29.6
b. Divide the groups so that there are half boys and half girls in each	50.1
c. Use a skill test to determine groups by ability	19.0

BY SEX:

	<u>Male</u>	<u>Female</u>		
a.	34.5	24.6		
b.	41.8	58.5		
c.	22.0	16.1		
	Chi Square = 25.58755		5df	Sig = 0.0001

BY SCHOOL SIZE:

	<u>Small</u>	<u>Medium</u>	<u>Large</u>		
a.	17.2	21.7	36.8		
b.	50.9	60.0	44.8		
c.	30.2	17.0	17.3		
	Chi Square = 39.48630		15df	Sig = 0.0005	

BY COMPLIANCE LEVEL:

	<u>Non</u>	<u>Partial</u>	<u>Full</u>		
a.	14.2	30.5	34.7		
b.	66.4	47.5	47.2		
c.	18.6	20.3	17.4		
	Chi Square = 25.17195		15df	Sig = 0.0477	

Table 39

## Question 24. Use of Time in Coeducational Classes

TOTAL GROUP:

a. More time is spent on skills and drills than in a single-sex class	23.2
b. More time is spent actually playing the game	30.8
c. Things are about the same	44.7

BY SEX:

	<u>Male</u>	<u>Female</u>		
a.	31.0	15.3		
b.	27.3	34.4		
c.	40.3	49.2		
	Chi Square = 31.21039		5df	Sig = 0.0000

BY SCHOOL SIZE:

	<u>Small</u>	<u>Medium</u>	<u>Large</u>		
a.	21.6	27.8	21.3		
b.	19.8	27.0	35.5		
c.	56.9	44.8	41.7		
	Chi Square = 26.68593		15df	Sig = 0.0314	

BY COMPLIANCE LEVEL:

	<u>Non</u>	<u>Partial</u>	<u>Full</u>		
a.	12.4	27.0	21.9		
b.	33.6	28.2	33.6		
c.	54.0	43.4	43.0		
	Chi Square = 20.13675		15df	Sig = 0.1668	

Table 40

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 Question 25. Emphasis on Physical Fitness in Coeducational Classes
 

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TOTAL GROUP:

a. More attention is paid to physical fitness	18.0
b. Less attention is paid to physical fitness	26.4
c. About the same attention is paid to physical fitness	54.0

BY SEX:

	<u>Male</u>	<u>Female</u>
a.	17.5	18.6
b.	29.5	23.4
c.	50.5	57.5
Chi Square = 11.55967    5df    Sig = 0.0413		

BY SCHOOL SIZE:

	<u>Small</u>	<u>Medium</u>	<u>Large</u>
a.	6.9	19.1	20.2
b.	26.7	24.8	27.3
c.	64.7	54.8	51.0
Chi Square = 22.64888    15df    Sig = 0.0919			

BY COMPLIANCE LEVEL:

	<u>Non</u>	<u>Partial</u>	<u>Full</u>
a.	7.1	22.4	15.5
b.	24.8	26.0	27.9
c.	66.4	50.4	54.7
Chi Square = 30.84207    15df    Sig = 0.0092			

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Table 41

## Question 26. Discipline in Coeducational Classes

TOTAL GROUP:

a. More discipline problems for the teachers to handle	24.2
b. Fewer discipline problems for the teachers to handle	25.8
c. About the same number of discipline problems	48.9

BY SEX:

	<u>Male</u>	<u>Female</u>		
a.	20.3	28.1		
b.	34.5	17.1		
c.	43.5	54.3		
	Chi Square = 37.48392		5df	Sig = 0.0000

BY SCHOOL SIZE:

	<u>Small</u>	<u>Medium</u>	<u>Large</u>		
a.	30.2	27.4	21.1		
b.	27.6	21.3	27.5		
c.	41.4	49.6	50.6		
	Chi Square = 14.99072		15df	Sig = 0.4521	

BY COMPLIANCE LEVEL:

	<u>Non</u>	<u>Partial</u>	<u>Full</u>		
a.	28.3	26.3	19.2		
b.	28.3	23.6	27.9		
c.	41.6	49.2	51.7		
	Chi Square = 21.37631		15df	Sig = 0.1252	

Table 42

## Question 27. Strictness of Teachers in Coeducational Classes

TOTAL GROUP:

a. More strict than before	15.5
b. Not as strict as before	19.8
c. About as strict as before	63.4

BY SEX:

	<u>Male</u>	<u>Female</u>		
a.	15.0	16.1		
b.	24.8	14.8		
c.	58.5	68.3		
	Chi Square = 16.90445		5df	Sig = 0.0047

BY SCHOOL SIZE:

	<u>Small</u>	<u>Medium</u>	<u>Large</u>		
a.	12.9	21.7	13.1		
b.	12.1	19.6	21.7		
c.	75.0	57.0	63.9		
	Chi Square = 26.70053		15df	Sig = 0.0313	

BY COMPLIANCE LEVEL:

	<u>Non</u>	<u>Partial</u>	<u>Full</u>		
a.	15.9	17.9	11.7		
b.	24.8	16.7	22.3		
c.	56.6	64.7	64.5		
	Chi Square = 22.48785		15df	Sig = 0.0956	

Table 43

## Question 28. Danger of Injury in Coeducational Classes

TOTAL GROUP:

a. More danger of students getting injured	29.7
b. Less danger of students getting injured	17.4
c. The same danger of students getting injured	52.3

BY SEX:

	<u>Male</u>	<u>Female</u>		
a.	23.3	36.2		
b.	28.0	6.8		
c.	47.5	57.0		
	Chi Square = 71.23141		5df	Sig = 0.0000

BY SCHOOL SIZE:

	<u>Small</u>	<u>Medium</u>	<u>Large</u>		
a.	40.5	32.6	25.3		
b.	16.4	19.1	16.9		
c.	43.1	47.0	57.4		
	Chi Square = 25.45070		15df	Sig = 0.0442	

BY COMPLIANCE LEVEL:

	<u>Non</u>	<u>Partial</u>	<u>Full</u>		
a.	38.9	30.5	24.2		
b.	21.2	16.0	18.1		
c.	38.1	53.2	57.0		
	Chi Square = 28.10486		15df	Sig = 0.0209	

Table 44

## Question 29. Feelings of Confidence in Coeducational Classes

TOTAL GROUP:

a.	More confident (superior) about my skills	26.7
b.	Less confident (inferior) about my skills	29.7
c.	The same amount of confidence as in a class of just my sex	42.9

BY SEX:

	<u>Male</u>	<u>Female</u>		
a.	42.0	11.3		
b.	12.5	47.0		
c.	44.8	41.0		
			Chi Square = 150.96660	4df Sig = 0.0000

BY SCHOOL SIZE:

	<u>Small</u>	<u>Medium</u>	<u>Large</u>		
a.	25.9	27.0	26.8		
b.	29.3	34.3	27.3		
c.	44.8	37.8	45.0		
			Chi Square = 8.39197	12df Sig = 0.7538	

BY COMPLIANCE LEVEL:

	<u>Non</u>	<u>Partial</u>	<u>Full</u>		
a.	30.1	26.5	25.7		
b.	44.2	28.9	24.5		
c.	24.8	43.9	49.1		
			Chi Square = 27.99615	12df Sig = 0.0055	



Table 45

## Question 30. Effort Extended in Coeducational Classes

TOTAL GROUP:

a. Try harder than in a single sex class	39.3
b. Don't try as hard as in a single-sex class	18.7
c. Try the same as in a single sex class	41.6

BY SEX:

	<u>Male</u>	<u>Female</u>		
a.	31.8	47.0		
b.	22.8	14.6		
c.	45.0	38.2		
	Chi Square = 21.46358		3df	Sig = 0.0001

BY SCHOOL SIZE:

	<u>Small</u>	<u>Medium</u>	<u>Large</u>		
a.	37.1	45.7	36.8		
b.	19.0	17.4	19.3		
c.	43.1	36.5	43.7		
	Chi Square = 7.91334		9df	Sig = 0.5429	

BY COMPLIANCE LEVEL:

	<u>Non</u>	<u>Partial</u>	<u>Full</u>		
a.	42.5	38.4	39.6		
b.	15.9	21.7	15.1		
c.	40.7	39.4	45.3		
	Chi Square = 9.40712		9df	Sig = 0.4006	

Table 46

## Question 31. Skills Improvement in Coeducational Classes

TOTAL GROUP:

a. Improve more than in a separate class	29.7
b. Improve less than in a separate class	25.3
c. Improve the same as in a separate class	43.6

BY SEX:

	<u>Male</u>	<u>Female</u>		
a.	25.8	33.7		
b.	28.8	21.9		
c.	43.3	44.0		
	Chi Square = 14.94261		4df	Sig = 0.0048

BY SCHOOL SIZE:

	<u>Small</u>	<u>Medium</u>	<u>Large</u>		
a.	28.4	26.1	31.7		
b.	24.1	29.1	23.7		
c.	47.4	42.6	43.2		
	Chi Square = 9.07023		12df	Sig = 0.6969	

BY COMPLIANCE LEVEL:

	<u>Non</u>	<u>Partial</u>	<u>Full</u>		
a.	26.5	29.4	31.3		
b.	21.2	29.6	20.4		
c.	48.7	40.6	46.4		
	Chi Square = 19.40459		12df	Sig = 0.0792	

Table 47

## Question 32. Teacher Expectations in Coeducational Classes

TOTAL GROUP:

a.	Expect more out of the boys than the girls	49.1
b.	Expect more out of the girls than the boys	9.1
c.	Expect the same from both boys and girls	40.5

BY SEX:

	<u>Male</u>	<u>Female</u>		
a.	54.3	44.0		
b.	9.3	9.0		
c.	35.3	45.7		
			Chi Square = 11.04641	5df Sig = 0.0505

BY SCHOOL SIZE:

	<u>Small</u>	<u>Medium</u>	<u>Large</u>	
a.	57.8	50.4	46.3	
b.	4.3	9.6	10.2	
c.	37.1	39.1	41.9	
			Chi Square = 17.44916	15df Sig = 0.2927

BY COMPLIANCE LEVEL:

	<u>Non</u>	<u>Partial</u>	<u>Full</u>	
a.	50.4	50.8	46.0	
b.	13.3	8.4	8.7	
c.	34.5	40.1	43.4	
			Chi Square = 12.38065	15df Sig = 0.6500

Table 48

## Question 33. Grades in Coeducational Classes

TOTAL GROUP:

a.	Better than in a class of just my sex	23.8
b.	Worse than in a class of just my sex	14.8
c.	About the same as in a class of just my sex	61.0

BY SEX:

	<u>Male</u>	<u>Female</u>		
a.	63.8	62.8		
b.	17.8	16.3		
c.	17.3	20.1		
	Chi Square = 1.78795		4df	Sig = 0.7747

BY SCHOOL SIZE:

	<u>Small</u>	<u>Medium</u>	<u>Large</u>		
a.	19.0	18.7	27.7		
b.	10.3	20.4	12.9		
c.	70.7	60.4	58.8		
	Chi Square = 19.22134		12df	Sig = 0.0833	

BY COMPLIANCE LEVEL:

	<u>Non</u>	<u>Partial</u>	<u>Full</u>		
a.	19.5	22.2	28.3		
b.	24.8	14.6	10.6		
c.	54.9	63.2	60.0		
	Chi Square = 23.30142		12df	Sig = 0.0253	

Table 49

## Question 34. Enjoyment of Coeducational Classes

TOTAL GROUP:

a. More fun	63.3
b. Less fun	17.0
c. About the same as before	18.7

BY SEX:

	<u>Male</u>	<u>Female</u>		
a.	63.8	62.8		
b.	17.8	16.3		
c.	17.3	20.1		
	Chi Square = 1.78795		4df	Sig = 0.7747

BY SCHOOL SIZE:

	<u>Small</u>	<u>Medium</u>	<u>Large</u>		
a.	53.4	64.3	65.2		
b.	29.3	18.3	13.3		
c.	17.2	15.7	20.6		
	Chi Square = 21.43195		12df	Sig = 0.0444	

BY COMPLIANCE LEVEL:

	<u>Non</u>	<u>Partial</u>	<u>Full</u>		
a.	62.8	59.4	69.4		
b.	18.6	21.0	10.2		
c.	17.7	18.4	19.6		
	Chi Square = 20.13852		12df	Sig = 0.0645	

Table 50

## Question 35. Teacher Preferences for Coeducational Classes

TOTAL GROUP:

a. The best qualified woman	9.8
b. The best qualified man	11.8
c. The best qualified woman and...man for team teaching	28.9
d. It wouldn't make any difference	48.6

BY SEX:

	<u>Male</u>	<u>Female</u>		
a.	11.5	8.0		
b.	18.8	4.8		
c.	24.3	33.7		
d.	45.0	52.3		
	Chi Square = 46.81677		5df	Sig = 0.0000

BY SCHOOL SIZE:

	<u>Small</u>	<u>Medium</u>	<u>Large</u>		
a.	4.3	13.5	9.3		
b.	15.5	10.0	11.5		
c.	45.7	39.6	19.3		
d.	34.5	35.7	59.0		
	Chi Square = 76.83070		15df	Sig = 0.0000	

BY COMPLIANCE LEVEL:

	<u>Non</u>	<u>Partial</u>	<u>Full</u>		
a.	15.0	9.3	8.3		
b.	13.3	11.0	12.1		
c.	37.2	32.2	20.4		
d.	32.7	46.8	58.5		
	Chi Square = 35.62215		15df	Sig = 0.0020	

Table 51

## Question 36. Equality of Facilities and Equipment

TOTAL GROUP:

a. Of better quality for the boys than for the girls	22.6
b. Of better quality for the girls than for the boys	10.0
c. Of equal quality for boys and girls	42.9
d. Am unable to determine	23.7

BY SEX:

	<u>Male</u>	<u>Female</u>		
a.	18.0	27.1		
b.	16.0	4.0		
c.	41.5	44.2		
d.	23.5	23.9		
	Chi Square = 38.49283		5df	Sig = 0.0000

BY SCHOOL SIZE:

	<u>Small</u>	<u>Medium</u>	<u>Large</u>		
a.	12.9	23.9	24.4		
b.	4.3	12.6	10.0		
c.	64.7	45.2	36.1		
d.	17.2	17.4	28.6		
	Chi Square = 52.82382		15df	Sig = 0.0000	

BY COMPLIANCE LEVEL:

	<u>Non</u>	<u>Partial</u>	<u>Full</u>		
a.	17.7	27.4	17.0		
b.	15.0	8.1	10.6		
c.	45.1	42.2	43.0		
d.	20.4	21.2	29.1		
	Chi Square = 30.59956		15df	Sig = 0.0099	

Table 52  
Question 37. Knowledge of Title IX

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TOTAL GROUP:

a. Yes	25.8
b. No	73.2

BY SEX:

	<u>Male</u>	<u>Female</u>		
a.	26.0	25.6		
b.	73.0	73.4		
			Chi Square = 3.34775	5df Sig = 0.6465

BY SCHOOL SIZE:

	<u>Small</u>	<u>Medium</u>	<u>Large</u>		
a.	12.9	21.3	31.3		
b.	87.1	77.4	67.6		
				Chi Square = 25.36168	15df Sig = 0.0453

BY COMPLIANCE LEVEL:

	<u>Non</u>	<u>Partial</u>	<u>Full</u>		
a.	15.9	27.2	27.5		
b.	81.4	72.3	71.3		
				Chi Square = 18.95772	15df Sig = 0.2157

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Table 53

## Question 38. Knowledge of Title IX Coordinator

TOTAL GROUP:

a. Yes	7.9
b. No	90.7

BY SEX:

	<u>Male</u>	<u>Female</u>		
a.	9.0	6.8		
b.	89.3	92.2		
Chi Square = 6.41887			4df	Sig = 0.1700

BY SCHOOL SIZE:

	<u>Small</u>	<u>Medium</u>	<u>Large</u>		
a.	3.4	5.7	10.2		
b.	96.6	91.7	88.7		
Chi Square = 16.34535				12df	Sig = 0.1759

BY COMPLIANCE LEVEL:

	<u>Non</u>	<u>Partial</u>	<u>Full</u>		
a.	5.3	7.4	9.8		
b.	91.2	91.9	88.7		
Chi Square = 23.51256				12df	Sig = 0.0237

Table 54

## Question 39. Knowledge of Process for Complaints

TOTAL GROUP:

a. Yes	36.1
b. No	61.8

BY SEX:

	<u>Male</u>	<u>Female</u>		
a.	38.5	33.7		
b.	58.5	65.1		
Chi Square = 9.23898			4df	Sig = 0.0554

BY SCHOOL SIZE:

	<u>Small</u>	<u>Medium</u>	<u>Large</u>		
a.	41.4	36.1	34.8		
b.	57.8	61.3	63.0		
Chi Square = 13.37659				12df	Sig = 0.3423

BY COMPLIANCE LEVEL:

	<u>Non</u>	<u>Partial</u>	<u>Full</u>		
a.	30.1	40.8	31.3		
b.	65.5	58.0	66.0		
Chi Square = 22.42548				12df	Sig = 0.0330

Total group. As a total group the students were very positive about participating in coeducational physical education classes. In response to a Question 21 (see Table 36) asking for general feelings about coed physical education, 42.9 percent reported "very good," with an additional 44.1 percent reporting "pretty good." Only 2.8 percent reported "very bad." Question 34 (see Table 49) asked for a description of the amount of fun students had in classes with members of the opposite sex. Sixty-three percent said that the classes were "more fun." Another 18 percent said it was the same amount of fun as before.

On the whole, students did not identify many differences in the conduct of the coeducational classes as compared to single-sex classes. Responses to six questions addressing this indicated the following:

1. The amount of time spent on skills and drills was about the same as in a single-sex class--44.7 percent (Question 24, see Table 39).
2. The same attention was paid to fitness and conditioning exercises/activities--54.0 percent (Question 25, see Table 40).
3. The discipline problems were about the same as in a single-sex class--48.9 percent (Question 26, see Table 41).
4. The teachers were about as strict as before--63.4 percent (Question 27, see Table 42).
5. There was the same danger of students getting injured as in a single-sex class--52.3 percent (Question 28, see Table 43).
6. The grades were about the same as in a single-sex class--61.0 percent (Question 33, see Table 48).

In addition, the highest percentage of responses to questions relating to individual performance reflected little change from the single-sex classes. The students as a total group reported that in a coeducational class:

1. They tried the same as in a single-sex class--41.6 percent (Question 30, see Table 45).
2. Their skills improved about the same as in a single-sex class--43.6 percent (Question 31, see Table 46).
3. They felt the same amount of confidence as in a single-sex class--42.9 percent (Question 29, see Table 44).

It should also be pointed out, however, that for Question 30, 39.3 percent of the students reported trying harder in a coeducational class.

Over 50 percent of the students favored organizing classes with half boys and half girls in each group (Question 23, see Table 38). The sex of the teacher was of little concern to the largest percentage of the students, with 48.6 percent stating that "it wouldn't make any difference" (Question 35, see Table 50). The second most frequent response to this question favored having both a male and a female present for team teaching: 28.9 percent.

The one area in which the students noted a discrepancy in the conduct of the program related to Question 32, teacher expectation of students. Forty-nine percent of the students indicated that teachers in a coed class tended to expect more out of the boys than the girls. Forty percent of the students felt that the expectations were the same for both boys and girls.

Of the twenty activities that students were asked to classify for a coed class or a separate-sex class (Questions 1 through 20, see Tables 16 through 35) only five did not receive at least 50 percent of the responses favorable to coed. They were: fitness and conditioning, 49.6 percent; field hockey, 44.2 percent; basketball, 43.4 percent; weight training, 41.5 percent; and wrestling, 30.2 percent. The positive feelings stated by the students with regard to the coeducational classes fell into four main categories:

1. More fun in class.
2. Increased social benefits: getting to know the opposite sex, improved relationships, and better cooperation.
3. Equal treatment of boys and girls.
4. More different activities than in a single-sex class.

Almost half of the students identified no negative feelings.

Those identified fell into the following major categories:

1. Roughness in activities: more for the girls and less for the boys.
2. Feelings of inferiority in front of the opposite sex and self-consciousness about appearance and performance.
3. Concern that some students did not try as hard as they were capable of doing.

The main areas of improvement suggested by the students were:

1. More use of ability grouping in classes.
2. Greater variety in activity offerings.
3. Increased student choice in activities.
4. More fair treatment by teachers.
5. Added facilities and equipment.

The majority of the students wrote that they felt there was equality of opportunity and treatment in their physical education classes. Those who did not agree primarily referred to:

1. Different expectations of boys and girls in class.
2. Favoritism toward the boys in the programs.
3. Different activity offerings for boys and girls.

Comparisons by sex. There were significant differences in the responses of the students by sex for 26 of the 39 questions treated statistically.

In general the boys expressed more favorable feelings toward coeducational activities than the girls. On ten of the twenty activities listed in questions 1 through 20, the boys were significantly more favorable to having them in a coeducational setting (see Table 55).

Table 55

Students Favoring Coed Activities:  
Significant Differences by Sex

	Boys	Girls
Basketball	49.0	37.7
Field Hockey	50.0	38.4
Fitness and Conditioning	62.0	37.2
Gymnastics	72.3	42.7
Modern Dance	92.0	84.7
Stunts and Tumbling	77.3	49.5
Swimming	91.3	60.3
Track and Field	69.0	52.3
Weight Training	47.3	35.7
Wrestling	44.3	16.1

Only in the case of volleyball were the girls significantly more favorable than the boys, 87.9 percent to 81.0 percent. In terms of general feelings toward coed classes, 47.0 percent of the boys responded "very good," compared to 38.7 percent of the girls.

The perceptions of the conduct of the coeducational classes in comparison to the single sex classes also revealed a number of differences by sex:

1. Amount of time spent on skills and drills (Question 24, see Table 39).

Significantly more boys stated that more time was spent on skills and drills: 31.0 percent compared to 15.3 percent of the girls.

2. Attention to physical fitness (Question 25, see Table 40).

Significantly more boys stated that less attention was paid to fitness activities: 29.5 percent compared to 23.4 percent of the girls.

3. Discipline problems (Question 26, see Table 41).

Boys were much more inclined to say that there were fewer problems: 34.5 percent compared to 17.1 percent of the girls. The girls increasingly said that there were more problems: 28.1 percent compared to 20.3 percent of the boys.

4. Strictness of the teachers (Question 27, see Table 42).

Boys, much more than girls, felt that the teachers were not as strict in coed classes: 24.8 percent compared to 14.8 percent.

5. Danger of injury (Question 28, see Table 43).

Boys more frequently said that there was less chance for injury: 28.0 percent compared to 11.3 percent. Girls much more frequently indicated increased chance of injury: 36.2 percent compared to 23.3 percent.

6. Grades (Question 33, see Table 48).

Boys more frequently indicated improved grades: 29.3 percent compared to 18.3 percent of the girls. Girls more frequently indicated that their grades were about the same: 66.3 percent compared to 55.3 percent of the boys.

Perceptions related to individual performance also differed significantly by sex:

1. Girls more frequently indicated trying harder in coeducational classes than did the boys: 47.0 percent compared to 31.8 percent.

Boys, on the other hand, were more apt to say that they had tried less: 22.8 percent compared to 14.6 percent (Question 30, see Table 45).

2. Girls more frequently indicated a greater improvement in their skills as a result of coeducational classes: 33.7 percent compared to 25.8 percent. Boys were more likely to indicate less improvement: 28.8 percent compared to 21.9 percent (Question 31, see Table 46).
3. The responses to the question about the amount of confidence felt by the individuals in coeducational classes were almost opposite by sex. Boys more often said that they felt more confident: 42.0 percent compared to 11.3 percent. Girls more often said that they felt less confident: 47.0 percent compared to 12.5 percent (Question 29, see Table 44).

In terms of class organization, the girls were much more concerned about having equal numbers of each sex in each group, with 58.5 percent expressing this desire, compared to 41.8 percent of the boys. In indicating teacher preferences, girls more often said that the sex of the teacher made no difference: 52.3 percent compared to 45.0 percent, and that they preferred a member of each sex for team teaching: 33.7 percent compared to 24.7 percent. The boys more often specified one sex: 18.8 percent of the boys favored a man



compared to 4.8 percent of the girls, and 11.5 percent of the boys favored a woman compared to 8.0 percent of the girls.

The major differences in the written comments to the last four questions, 40-43, by the boys and the girls were in the areas of negative feelings and perceptions of equality. The girls more often complained that the activities were too rough and that the boys dominated too much. They were also much more sensitive about their appearance and their performance. Several were upset about ridicule from the boys. The boys, on the other hand, felt restrained and no longer able to go "all-out" in their activities. The boys also more often expressed the feeling that the girls did not try as hard in the games. In terms of equality, the boys more often expressed the feeling that girls were given special treatment, while the girls more often felt that the boys were favored and treated better. The following comments were illustrative:

Sometimes the boys get chances to play more challenging and fun games while the girls play table tennis (12th grade girl, H).

Boys get in trouble if they get mad at girls. It hinders the athletically inclined's ability. Every consideration is made for the girls (12th grade boy, D).

They should treat the girls as rough as the boys (10th grade boy, I).

Some guys are immature and tease us (11th grade girl, K).

Comparisons by school size. There were significant differences by school size for 26 of the 39 questions treated statistically.

Students from the large schools were most favorable about coeducational classes with 51.0 percent of these students indicating

"very good" feelings, compared to 37.0 percent from the middle-size schools and 22.4 percent from the small schools. This more favorable feeling from the large schools was likewise reflected in the percentages of their responses favoring coeducational classes for 13 of the 20 activities. For nine of the thirteen activities it was the responses from the middle size schools that were the lowest in percentage of favorableness toward coed activities (see Table 56). Students from the large schools also had the highest percentage of responses stating that coeducational classes were "more fun": 65.2 percent compared to 64.3 percent from the middle-size schools and 53.4 percent from the small schools. The small schools had the highest percentage saying "less fun": 29.3 percent.

Table 56

## Activities with Significant Differences by School Size

	Percent Favoring Coed		
	Large	Middle	Small
Archery	92.9	83.9	88.8
Badminton	94.5	82.2	88.8
Basketball	51.7	32.6	31.9
Bowling	94.2	90.4	98.3
Field Hockey	56.5	26.5	31.0
Fitness and Conditioning	60.5	35.7	34.5
Flag Football	62.3	46.1	34.5
Golf	90.0	80.9	93.1
Gymnastics	68.7	43.0	42.2
Soccer	59.9	38.3	39.7
Softball	77.8	62.6	62.9
Stunts and Tumbling	76.1	44.8	50.9
Track and Field	72.7	43.5	47.4
Weight Training	54.5	25.7	21.6
Wrestling	36.6	24.8	15.5

There were also significant differences by school size to the responses to questions related to the conduct of classes:

1. Amount of time spent on skills and drills (Question 24, see Table 39).

Students from the large schools had the highest percentage of responses stating more time spent playing the game: 35.5 percent to 27.0 percent from middle-size schools and 19.8 percent from small schools. Students from small schools most often replied that the amount of time was the same: 56.9 percent compared to 44.8 percent from the middle-size schools and 41.7 percent from the large schools.

2. Attention to fitness and conditioning (Question 25, see Table 40).

Students from the small schools most frequently replied that attention was the same: 64.7 percent compared to 54.8 percent from middle-size schools and 51.0 percent from large schools.

3. Strictness of teachers (Question 27, see Table 42).

Students from the small schools most frequently reported that the teachers were as strict as before: 75.0 percent compared to 57.0 percent from middle-size schools and 63.9 percent from large schools.

4. Danger of injury (Question 28, see Table 43).

Students from the large schools most frequently reported no change in danger of injury: 57.4 percent compared to 47.0 percent from middle-size schools and 43.1 percent from small schools. Students from the small schools expressed the greatest feeling of increased danger: 40.5 percent compared to 32.6 percent from middle-size schools and 25.3 percent from large schools.

In terms of class organization, students from the large schools were least concerned about having an equal number of boys and girls in the class: 44.8 percent compared to 60.0 percent from the middle size schools and 50.9 percent from the small schools. Students from the large schools were also the least concerned about the sex of the

teacher. Fifty-nine percent said it made no difference, compared to 35.7 percent from the middle-size schools and 34.5 percent from the small schools.

Comparison by compliance level. There were significant differences by compliance level for 31 of the 39 questions treated statistically.

Without exception, the percentages of student responses favoring coeducational classes were most favorable from the full compliance schools. The second most favorable response came from students in the partial compliance schools in 15 of the 20 activities. When asked to describe their general feelings toward coeducational classes, the students from the full compliance schools again were most favorable with 60.0 percent of that group responding "very good." This compared to 34.8 percent of the group from the partial compliance schools and 31.9 percent from the noncompliance schools.

Significant differences existed as follows in the responses to questions regarding program conduct:

1. Attention to fitness and conditioning (Question 25, see Table 40).

The students from the noncompliance schools most frequently stated that the same attention was given as in a separate sex class: 66.4 percent compared to 50.4 percent from the partial compliance schools and 54.7 percent from the full compliance schools. Students from the partial compliance schools had the highest percentage of responses stating that more attention was given.

2. Danger of injury (Question 28, see Table 43).

Students from the full compliance schools most frequently stated that the danger of injury was

the same: 57.0 percent compared to 53.2 percent from the partial compliance schools and 38.1 percent from the noncompliance schools. Students from the non-compliance schools had the highest percentage of responses stating more danger in coeducational classes: 38.9 percent.

3. Grades (Question 33, see Table 48).

There were wide variations in the responses to this question. Students from the full compliance schools had the highest percentage of responses in the category of "better grades." Students from the noncompliance schools had the highest percentage of responses in the category of "worse grades," while students from the partial compliance schools had the highest percentage of responses in the category of "no change" in grades.

Perceptions related to individual feelings about confidence differed significantly by compliance level. Students from the non-compliance schools had the highest percentage of responses in the category expressing "less confident": 44.2 percent compared to 28.9 percent from the partial compliance schools and 24.5 percent from the full compliance schools. Students from the full compliance schools had the highest percentage of responses stating the same amount of confidence as before (Question 29, see Table 44).

In terms of class organization, the students from the noncompliance schools were the most concerned about there being equal numbers of boys and girls in class, with 66.4 percent expressing this viewpoint compared to 47.5 percent from the partial compliance schools and 47.2 percent from the full compliance schools. Students from the full compliance schools had the highest percentage of responses stating no concern for the numbers of boys and girls in the classes. For the sex of the teacher in the class, the students

from the full compliance schools most often stated that it would make no difference: 58.5 percent compared to 46.8 percent from the partial compliance schools and 32.7 percent from the noncompliance schools. The students from the noncompliance schools most frequently stated a desire for team teaching with a member of both sexes present: 37.2 percent compared to 32.2 percent from the partial compliance schools and 20.4 percent from the full compliance schools.

#### Generalized Comparison of Perceptions Held By Principals, Teachers, and Students

Differences in perceptions of various aspects of the physical education programs among the principals, teachers, and students were more a matter of degree than of kind. All three groups expressed positive feelings about the coeducational classes, but the principals did so to a greater extent than the teachers. The students were also more positive in their expressions as a total group than were the teachers, with 42.9 percent expressing "very good" feelings and 44.1 percent expressing "pretty good" feelings. Only 2.8 percent of the students expressed "very bad" feelings. The positive reaction of the students was further indicated by the 63.3 percent response that coeducational classes were "more fun" than separate classes.

The teachers were the most apt to recognize changes in the program focus and objectives, as well as in the program quality, as a result of coeducational classes. The majority of both the teachers and the principals noted an improvement in quality, but the teachers did so to a greater extent. The teachers especially noted improvements

in programs for the boys. Students were not asked to respond directly to questions regarding program focus or objectives. Their responses to a series of questions related to the general conduct of the program, however, indicated few differences from classes in a single-sex setting.

Positive aspects of coeducational programs were viewed similarly by all three groups. Social values in the form of improved male-female relationships and acceptance of the opposite sex ranked highest as a positive aspect, and teachers stated this more frequently than any other group. Both the teachers and the principals noted broader course offerings and improved teaching as additional benefits. Aspects identified by the students in addition to the social included increased fun, improved skills, broadened program, and increased equal opportunities.

Neither the principals nor the male physical education teachers cited much in the way of negative aspects. Female teachers cited a variety of negative aspects, but these did not fall into any common groupings. Students, on the other hand, expressed negative feelings which fell into the following major categories: feelings related to differences in the physical skills and abilities between the sexes; feelings related to diminished self-concept due to embarrassment and perceived inferiority in relation to the opposite sex; feelings related to increased roughness and potential danger in activities; feelings related to restrictions on competitiveness and physical contact; and feelings related to differential expectations of the

two sexes. Although the complaints of the students were more specific in nature, they were not larger in number. Like the female teachers, the girls more often expressed negative feelings than the boys.

The overwhelming majority of the students felt that there was equality of opportunity in their physical education programs. Both the principals and teachers agreed that the coeducational programs under Title IX were more equal. There was a general feeling among the students, however, that the teachers expected more from the boys than from the girls (49.1 percent, Question 32, see Table 47); this was not reflected by either of the adult groups.

Teachers received more complaints about the coeducational program than the principals, but the majority of the teachers experienced no increase in complaints about physical education due to coeducational classes. Students were asked to identify areas where improvements could be made (Question 42). The most frequent response was a request for broader course offerings. Other suggestions in order of frequency were common expectations for both boys and girls, equal groupings of students within classes by sex and/or ability, and increased student choices in activities.

Safety and liability concerns were not regarded any differently for coeducational classes than for separate sex classes by the principals and the majority of the male teachers. The majority of the female teachers did express increased concerns. This was also reflected in the responses of the girls, with increased roughness most often cited. Some boys, by contrast, were concerned that they



could no longer be as competitive or as rough in the coeducational classes.

All of the principals and male teachers regarded the number of discipline problems as being the same or fewer. Six of the eleven female teachers, however, indicated that the coeducational classes caused more discipline problems. Only 24.2 percent of the students felt that there were more discipline problems in the coeducational classes, but the girls felt this way to a significantly greater extent than the boys.

Both the principals and the teachers agreed that the future would bring an increased emphasis on carry-over activities. There was one difference in the outlook of these two groups. Three principals saw physical education evolving into more of a discipline similar to other subject areas. No teacher expressed this viewpoint, but by contrast three teachers expressed very pessimistic views about the future of physical education, citing lack of administrative support among the reasons for this. No administrator expressed such a pessimistic view about the future of physical education.

Teachers and principals were both fairly accurate in their perceptions of student views, particularly in their assessment of the positive feelings. The teachers were more able than the principals to identify the problem areas or negative feelings from the perspectives of the students. The one area expressed by the students, however, and not recognized by the other two groups related to inequities in treatment of the two sexes. Some discrepancies in

treatment were noted by the investigator during the course of the interviews, but the teachers were not aware of these or did not recognize these as problem areas. This reflected a lack of awareness and a need for attitude change on a deeper level.

On the whole, the views of the three groups were similar in reactions to and perceptions of the coeducational programs. The principals were the most general in their responses, while the students were the most specific in articulating their concerns.

#### Implications for Future Program Development

The findings of this study have implications for physical education development in at least three areas: (a) curriculum planning, (b) professional preparation, and (c) promotion of sex equality.

#### Curriculum Planning

As noted previously, the movement to coeducational classes has accompanied or been accompanied by a movement to lifetime and carry-over sports. At the high school level in recent years, fewer and fewer team sports have been taught. In addition to the rationale that team sports have little carry-over value, there has been the feeling that team sports were more apt to be contact activities. Thus, they have been limited or eliminated on the grounds of being inappropriate for coeducational participation. There are some schools which continue to offer these in a single-sex setting, as well as a few which offer them as coeducational electives. But on the whole, there has been a considerable reduction of this component of the

program. Even in some of the places that they have been continued, the rules have been modified.

Team sports have been a principal means of meeting such traditional physical education objectives as cardio-vascular and cardio-respiratory fitness and the whole realm of team play and cooperation. The activities which have replaced these have been principally sedentary in nature and have involved little in the way of team or group planning and working. Such activities as archery, tennis, golf, bowling, flycasting, frisbee, and lawn games offer few of the same values as the traditional team sports.

The result of this combination of coeducational classes and carry-over activities in the high schools has been a shift in objectives from those of fitness and skill development to those which are predominantly social and recreational in nature. This shift was not something that was articulated by any of the teachers or principals interviewed, but it is readily evident as one examines the totality of the comments and of the curricular offerings of the various schools. It is significant to note that the responses to the question about positive aspects of coeducational classes identified without exception social values. Not one person spoke directly to improved skill instruction or skill development or fitness level for the total group. There were some allusions to this occurring by those who said that girls were becoming more assertive and more competitive by being with boys, and by those who said that the boys' program had become less oriented to "throw out the ball" since joining with the girls.

On the whole, however, the dominant values of coeducational classes seem to revolve around improved boy-girl relationships, development of mutual respect, and greater appreciation for each other's abilities.

The emphasis on the social values has meant a direct reduction on the attention to skill development. Rather than emphasizing the development of skills toward an ideal level, present attention seems to be that of developing enough skill to play well enough together to enjoy the game. Another factor which has influenced this decline in attention to skill has been the adaptation and modification of rules by some schools. Not allowing one sex to do such things as spike the volleyball or shoot outside a certain area on the basketball court places limitations on total skill development.

Coeducational classes and carry-over activities in and of themselves do not result in lesser skill development in individuals. When they are accompanied, however, by a prevailing attitude that social relationships and social recreation are primary goals, the result is less skill development. This is an area which needs our attention, examination, and evaluation. At the same time, it is necessary to keep sight of the unique values of team sports and make certain that these are not eliminated from our programs. Concerns about contact sports, uncertainties about skill levels of sex-integrated classes, and fears about injuries have caused overreactions in some schools.

As curricular offerings are examined, it must be made certain that all objectives are being met through appropriate activity

offerings open to individuals of both sexes. Development of individual potential to its fullest extent must remain central, and we must not let social interaction goals diminish the unique contributions of physical education through the medium of movement. The curriculum must also be responsive to student interests, but not without a structure that ensures that a breadth of activity offerings are received by students that meet the objectives of the program. A curriculum totally open to or based on student choice offers no such guarantee.

#### Professional Preparation

The overwhelming majority of the teachers interviewed had received their professional preparation in the state of Iowa in single-sex programs. Not only had they not experienced coeducational classes themselves for the most part, but they had not been prepared to teach students of both sexes. As a result, there are limitations on their effectiveness both in terms of actual preparation and of attitudes.

The activity preparations have been directed largely toward the traditional activities for each sex, and this is what the teachers in this study experienced. Thus, the units they have taught in single-sex classes have reflected traditional societal sex role expectations, and the units that they therefore feel comfortable and qualified to teach to coeducational classes reflect these same traditional sex role expectations. The role models seen by the students thus perpetuate the stereotypes, with the male teachers more frequently teaching team sports, contact and combative activities, fitness, and

weight training, and the female teachers more frequently teaching rhythmic, weight control, and gymnastic activities. Though all courses may be open to all students, the very absence of a female role model demonstrating acceptability of participation serves as a limiting influence for girls to select activities previously non-traditional for their sex. The same would apply to boys, lacking a male role model in activities nontraditional for their sex.

The majority of the professional preparation programs today are in merged physical education departments with a common curriculum for male and female majors (Razor, 1976). All courses are thus open to all students, but whether special encouragement is being given to students to prepare themselves in nontraditional activities is another question. If we are truly to reach a point where the entire range of physical activities is engaged in as frequently by members of one sex as the other, affirmative steps must be taken to ensure preparation of role models of both sexes competent in the total range of activities. The coeducational curriculum necessitates a broader preparation in activities, and professional preparation programs must be responsive to this need, both in pre-service and in-service offerings and requirements.

Teachers in the field at present feel a need for additional curricular resources. Both male and female teachers interviewed in this study indicated this. The methods and activities books in their libraries were largely directed to one sex, and the teachers have been forced to improvise on their own. Some articles have been published

listing rule modifications and game adaptations to make activities appropriate for coeducational participation, but these have been largely without a sound theoretical base and held suspect by many of the teachers in the field. There is concern about modifications assuming a lack of ability on the part of one sex, while at the same time limiting the ability of the opposite sex. During the course of the interviews in this study, such questions as: What are the physical potentials of both sexes? Are there unique needs, be they physical, emotional, social, or mental for each sex? Are there special considerations to be made in planning progressions for co-educational classes? How many of the observed differences between the sexes are innate and how many are socialized? To what extent can a teacher hold common expectations for all students, regardless of sex? were raised and are recurring in the minds of practicing physical educators today. Publications, research, workshops, and resources are needed to facilitate implementation of coeducational programs that will truly reflect sex equality.

In addition to activity preparation and skill progression, there is a need for work in the area of evaluative processes for coeducational classes. Skill tests and norms presently available are largely sex specific. The Title IX Regulations do allow the use of separate evaluative instruments if the use of one would have an adverse effect on one sex. How does one determine when to use separate or a single set of norms? To what extent does a decision to use separate norms reflect a perpetuation of stereotypical performance expectations for

one sex? Practical guidelines for decision making in the selection and use of evaluative instruments and processes constitute an unmet need.

Permeating all phases of the professional preparation program are attitudes toward sex roles. Individuals interviewed in the study as well as those still in professional preparation programs today have been raised in a social climate dominated by traditional sex roles. This experience has been deeply internalized, and the adjustment to changing sex roles and statuses in society today is inevitably a slow one. Many sexist attitudes and biases are unconscious. Teachers in the study showed evidence of such biases in their differential expectations of boys and girls in terms of behavior, interests, and performance. Professional preparation programs should directly address attitudes toward sex roles and work at raising the awareness levels of all participants. Again, deliberate attention must be given to nonsexist teaching techniques if attitudes and expectations which reflect biases are ever to be overcome.

#### Promotion of Sex Equality

The intent of Title IX and the mandate for coeducational physical education classes was to promote equal opportunity, and, hence, sex equality in all phases of the programs. Analysis of the contents of the interviews and the practices in the school programs, however, reflected less than sex equality in practice. There can be little doubt that the parties involved have honest intentions to provide equitable programs and are making an effort to do so. The



results of these efforts, though, have been considerably less than equitable programs. A case might even be made that in some instances the programs are now less equitable than when the students were in separate-sex classes.

The major problem stems from stereotypical treatment of students by the teachers. In large part, teachers have been unable to view students first and foremost as individuals with varying abilities. What they have seen, rather, are boys with one set of abilities and girls with another set of abilities. Sex continues to be the organizing criterion. This is reflected in the use of rule modifications and game adaptations, and in the virtual absence of ability grouping within the classes. Many teachers in the study expressed a negative view of ability groups, not wanting to label or classify students as being high or low, and yet no teacher recognized the labelling inherent in classification of students purely on the basis of sex. Aspiration levels of students are influenced by teacher expectations, and teachers have a great influence on the performance levels pursued and attained by students.

The fact that "separate but equal" advocates remain in the ranks today is further example of the lack of awareness of the discrimination inherent in separatism. Separate classes over the years have been characterized by different activities, different performance expectations, and different performance levels. It is not uncommon for students to be treated by sex within a coeducational class. Expecting girls to do push-ups from the knees while boys do them

from the toes, and girls to run a half-mile while the boys run a mile are just two examples of common practices which serve only to perpetuate differences in performance levels by sex. Students come to believe that such differences in expectations are actual reflections on their individual performance potential.

That the present coeducational programs fall short of sex equality is most graphically demonstrated in the large number of significant differences in the responses to the questionnaire by the boys and the girls. Clearly, their perceptions of the programs are different. What are the teachers doing to cause these wide differences? What should teachers do to eliminate these differences? Once again, attitudes become central, and direct attention must be focused on attitudes among the teachers and among the students. Physical educators must respond to the discrepancies reflected in the questionnaire if the needs of all students are to be met. In addition, physical educators must address the problems of sex role stereotyping among the students as they arise in class. Only then can awareness be raised and change begin.

Early physical education programs reflected the view of women held by society at the time. Women were separated from the men, and their education was to prepare them to fulfill a role distinctly different from that of the men. Over time, society came to recognize the needs for women to receive the same education as men, and institutions became coeducational. Physical education remained apart, however, for though mental capacities were acknowledged as equal, the

physical capacities were deemed as significantly different. It has taken more than a century to overcome the Victorian notions about the propriety as well as the physical capacity for women to engage in activity in separate-sex settings, to say nothing of coeducational settings.

Physical education has thus trailed society in its recognition of the abilities of women, and is yet today lagging in its implementation of programs which truly reflect a base of sex equality. Laws mandating sex equality are in abundance, but the laws are not changing the attitudes of the people who direct the programs. The words of Justice Learned Hand depict well the need for the future:

I often wonder whether we do not rest our hopes too much upon constitutions, upon laws and upon courts. These are false hopes; believe me, these are false hopes. Liberty lies in the hearts of men and women; when it dies there, no constitution, no law, no court can even do much to help it. While it lies there it needs no constitution, no law, no court to save it.

Physical education can be a leader in the reexamination of sex roles and statuses today. It can also be a deterrent. We are at a critical crossroads, and without attention to careful curriculum planning, professional preparation revision, and promotion of sex-equality in attitudes as well as actions, we will surely fail. It is a failure we cannot risk.

CHAPTER V  
SUMMARY AND CONCLUSIONS

Summary

Extent of Implementation

The twelve schools visited represented three levels of compliance with the Title IX Regulations of the Education Amendments of 1972. Three schools were found to be in full compliance with the Regulations, seven schools were found to be in partial compliance, and two schools were found to be in noncompliance. The schools in partial compliance considered themselves, however, to be in compliance with the law. The major areas of noncompliance in these schools were in conducting sex-separate classes for selected activities (some of which were non-contact), differential course offerings to boys and to girls, and differential treatment of boys and girls (rules, uniform requirements, etc.). The two schools in noncompliance had not yet implemented co-educational physical education classes.

The principals all felt that they had received adequate information about Title IX, but nearly half of the teachers felt unfamiliar with the requirements of Title IX. In questions related to the Title IX Coordinator for the school and the grievance procedures for a complaint, the principals expressed more knowledge about these matters than the teachers. Although the principals claimed to have distributed information to the teachers, more than half of the teachers indicated

that they had not received this. Students were largely ignorant of Title IX, with only 25.8 percent indicating that they knew what Title IX was. Only 7.9 percent of the students knew who the Title IX Coordinator was. Thirty-six (36) percent of the students did indicate that they would know where to file a complaint related to sex discrimination.

The principals of the schools did not indicate any major problems in their districts in coming into compliance with Title IX. The comments of the teachers, however, indicated that many of them had considerable adjustments to make in teaching coeducational classes. The major action required for compliance by most of the schools involved a change in scheduling to provide for sex-integrated classes. Other changes identified included changing registration forms and course descriptions and changing facilities to allow for equal access. All physical education departments in the schools visited were merged into a single administrative unit. Five of these were headed by a male, four by a female, and three had no designated head. Three of the four female department heads were from large schools.

Although there was no clear grouping of schools by size into the various compliance levels, on the whole the large schools were in compliance to a greater degree than the other two groups.

There was no significant difference in the compliance levels of the schools according to socioeconomic level.

### Perceptions of Programs

There were significant differences in the perceptions held of the programs by school size, compliance level, and sex. The perceptions held by the persons in the various roles in and of themselves differed very little. On the whole, the reactions of the individuals interviewed were very positive toward coeducational classes.

The large schools had the broadest coeducational activity offerings and had their students in coeducational classes the largest percentage of the time. In addition, the students from the large schools were the most positive in their expression of feelings about coeducational classes and coeducational activities.

The perceptions of those from the full compliance group were significantly more positive than those of the other two groups. The full compliance group had experienced a wide range of activities in a coeducational setting and were very supportive of those on the whole. Responses from the partial and noncompliance groups were often based on anticipated fears; seldom had an individual actually experienced that which he/she indicated as a negative activity or problem area.

Males and females differed in a number of areas related primarily to the conduct of programs, i.e. skills work, discipline, safety, fitness, etc., and to the feelings of individuals. Self-consciousness, embarrassment, and a general lack of confidence were expressed by a number of the girls.

While the large majority believed in the value of coeducational physical education, there was some negative expression from a few physical education teachers across all compliance levels. This was basically a call for a return to "separate but equal" programs. The majority believed that the programs were more equal under the coeducational set-up, but no one identified or recognized the tracking and labelling by sex still going on within the programs in schools across all sizes and compliance levels. The value of the coeducational programs identified most readily was the improvement of social relationships. Improvement in skill instruction or skill development simply was not regarded by the group as a major value accruing from coeducational physical education classes.

Students did perceive unequal treatment by sex by the teachers. This was not recognized by either the principals or the teachers. In other matters related to student perceptions of program conduct, the teachers were more often able to identify these correctly than were the principals. Responses of the principals indicated only a general understanding of the physical education program and curriculum.

### Implications

The findings of this study have implications for the future in the areas of curriculum planning, professional preparation, and the promotion of sex equality.

The coeducational curriculums reveal a movement away from team sports toward recreational activities. A careful review and evaluation of the objectives of the program are necessary, with an

accompanying analysis of the activities that can best meet these objectives.

Professional preparation programs must ensure that students of both sexes are exposed to the full range of activities to be engaged in by all students. In addition to broad programming, attention must be paid to sexist attitudes, and deliberate steps should be taken to raise the consciousness of the students in the areas related to sex bias and sex role stereotyping in the teaching process. Teachers in the study indicated an interest in resources to aid their teaching.

The promotion of sex equality will require special affirmative efforts to develop interest and foster motivation. The development of role models is an important consideration for the future.

### Conclusions

On the basis of the findings of this study, the following conclusions were made:

1. Schools were making an honest effort to comply with Title IX in physical education programs. Only two schools were in noncompliance, and both of these indicated that plans were underway to implement the program in the fall of 1978.
2. The responses of all three groups of individuals--principals, teachers, and students--were supportive of and positive toward the implementation of Title IX and the resulting coeducational programs.
3. There were significant differences in responses when compared by compliance level. Members of schools deemed to be in full compliance were the most supportive of the programs. Members of the



noncompliance schools had the greatest reservations and concerns.

4. There were significant differences in implementation and in responses when compared by school size. Those from the large schools were the most positive in their responses toward coeducation programs and had implemented coeducational programs to the greatest extent.

5. There were significant differences in responses when compared by sex, both among the teachers and among the students. Male students tended to respond similarly to the male teachers, and the female students similarly to the female teachers.

6. There were no significant differences in the extent of implementation or in the perceptions held of programs in schools of varying socioeconomic levels.

7. There was an expressed need by physical education teachers for assistance in curricular matters: activity selection, progression, and evaluation.

8. Regardless of the extent of implementation, there were underlying attitudes in each school which perpetuated sex role stereotyping. Principals and teachers were largely unaware of these attitudes; students were most sensitive to differential expectations.

9. The coeducational programs were characterized by an emphasis on carry-over activities for social participation with an accompanying decline in emphasis on team sports and skill instruction.

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APPENDIX



UNIVERSITY OF NORTHERN IOWA - Cedar Falls, Iowa 50613

Department of Teaching  
Malcolm Price Laboratory School

March 16, 1978

Mr. Ralph Farrar, Principal  
Ames High School  
20th and Ridgewood  
Ames, Iowa 50010

Dear Mr. Farrar:

I am writing to solicit the participation of Ames High School in a dissertation study of "Sex Equality in High School Physical Education Programs." Ames High School has been drawn in a stratified random sample of twelve NCA-accredited schools which represent a cross section primarily in terms of size and to a lesser extent in terms of socio-economic status.

The purposes of the study will be to determine the extent of implementation of Title IX of the Education Amendments of 1972 in physical education and to explore the perceptions held of these programs by principals, physical education teachers, and students. Data will be collected via focused interviews of not more than forty-five minutes with the high school principal, the chair of the physical education department, and another member of the physical education department of the opposite sex as the chair. A sample of ten percent of the students in high school representing grades 10-12 and both sexes will be asked to complete a questionnaire of not more than twenty minutes in length.

The intent of this study is *not* to be investigative in terms of Title IX compliance. Rather, it is to look at the effects of Title IX implementation on physical education programs from the perspectives of administrators, teachers, and students. It is hoped that the results will provide some direction and guidance in terms of future curriculum development and program administration in physical education.

Responses of participants will be kept in *complete confidence*. In the reporting of results there will be *no identification of individuals or schools*. The data will be presented in the form of summary profiles. Enclosed you will find a sample of questions that will be characteristic of those included in the interviews and questionnaire. Schools interested in their individual results will be provided them. An abstract of the complete study will be mailed to all participating schools.

A postcard is enclosed for your indication of willingness to participate in this study. Upon receipt of an affirmative response, a telephone call will be made to schedule a date for visitation in your school. It is expected that the interviews and the questionnaire administration can be completed in a single day. If necessary, a second day will be used to complete the study.

It is my hope that it will be possible for you to participate in this study. Should you have any questions or concerns, please do not hesitate to call or write me. I will look forward to hearing of your response to this request and to visiting with you in the near future. Responses would be appreciated by March 24, 1978.

Thank you for your consideration.

Sincerely,

Patricia L. Geadelmann  
Chairperson, Physical Education



UNIVERSITY OF NORTHERN IOWA - Cedar Falls, Iowa 50613

Department of Teaching  
Malcolm Price Laboratory School

April 4, 1978

Mr. \_\_\_\_\_, Principal  
\_\_\_\_\_ High School  
Salsbury Drive  
\_\_\_\_\_, Iowa

Dear Mr. \_\_\_\_\_:

This letter is to confirm Wednesday, April 19, 1978, as the date that I will visit \_\_\_\_\_ High School for my dissertation study on "Sex Equality in High School Physical Education Programs." I will report to the high school office shortly after 8:00 a.m. and will be available throughout the day.

During the course of the day, I will need to do the following:

- a. Interview the high school principal - approximately 45 minutes
- \*b. Interview a female high school physical education teacher - approximately 45 minutes
- \*c. Interview a male high school physical education teacher - approximately 45 minutes
- d. Administer a questionnaire to a sample of boys and girls in grades 10-12. 14 boys and 14 girls from each grade will be adequate, but if you desire more can be done. This will take 15-20 minutes to complete. It can be done during a part of physical education class, study hall, or in any other manner you deem best.

\*I would like one of the persons interviewed to be the head of the physical education department, if you have such a person designated.

If you can schedule the times for the interviews and the questionnaire in accordance with the availability of the individuals involved, it should greatly facilitate matters for the day.

I greatly appreciate your willingness to cooperate in this study. As I indicated in my initial letter, the results will be anonymous, but I will be happy to share those from your school with you as well as a summary of those from the other schools in the study.

Mr. \_\_\_\_\_, Principal  
High School

April 4, 1978

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I will look forward to seeing you on April 19, 1978. Should any complications develop, you may write me at school, leave a telephone message at the high school office (319-273-2138), or call me at home (319-277-6606).

Thank you very much.

Sincerely,

Patricia L. Gadelmann

## INTERVIEW SCHEDULE

## PHYSICAL EDUCATION PROGRAM ADMINISTRATION

## REQUIREMENTS

What is the class requirement?  
 Is there any difference for boys and girls?  
 What is the dress requirement for class?  
 Is there any difference for boys and girls?  
 Are there any special rules for pregnant students?  
 Are there any exemptions from physical education class?  
 If so, are there any differences by sex in those exemptions?

## SCHEDULING OF STUDENTS

How are students scheduled for class?  
 Mixed grade levels?  
 Sex composition?  
 Activity choices?  
 Ability groups?  
 Flexibility for mixed and separate classes?

## STAFFING PATTERNS

How are staff members assigned to classes?  
 Is there any team teaching?  
 How many staff members are there?      Males?      Females?  
 Has there been any change in numbers since implementation of  
 Title IX?  
 Is any change in numbers expected in the near future?  
 How is lockerroom supervision provided?

## ORGANIZATIONAL STRUCTURE

Are there two separate departments for boys and for girls  
 or one?  
 How long has this structure been in effect?  
 Is any change expected in the near future?  
 What is the sex of the department head/chair?  
 How is the budget administered?  
 Separate for boys and for girls or together?

## CURRICULUM

## SINGLE-SEX ACTIVITIES

Percent of time spent in single-sex groups this year?  
    Projected percentage for next year?  
Activities for boys  
Activities for girls  
Circumstances for separation by sex:  
    Calisthenics?  
    Skill work?  
    Game play?

## COEDUCATIONAL ACTIVITIES

Percent of time in coed groups this year?  
    Projected percentage for next year?  
Coed activities:  
What adaptation of rules is made for coed activities?  
How much ability grouping is used?  
    For which activities?  
Has there been a revision of the curriculum guide to reflect the  
    coed program?  
Do you feel that the coed program has resulted in a change in  
    program focus?  
    Any difference in overall objectives?  
Do you feel that the coed program has resulted in a change in  
    overall physical education quality at your school? How?  
How do you handle contact sports in the program in terms of  
    single and mixed groups?  
Do you feel that any more or any less time is spent on drills  
    and skills in a coeducational class?  
Do you feel that there is any more or any less emphasis on  
    physical fitness in the coeducational classes?

## EVALUATION OF STUDENTS

What has been the impact of coed programs on student grades?  
Is there a departmental policy for evaluation of students?  
To what extent are separate norms or scales used for each sex?  
    The same norms and scales used for both sexes?

## STUDENT INPUT

What opportunities are there for student input into the  
    curriculum?

- What are your perceptions of student attitudes/reactions to coed p.e.?
- When students are given choices of activities, do there appear to be any patterns of choices that result in single-sex groups?  
For which activities?
- What encouragement is there for students to select activities generally considered nontraditional for their sex?

## IMPACT OF TITLE IX ON PROGRAM ADMINISTRATION AND CURRICULUM

### CHANGES THAT HAVE ALREADY BEEN MADE TO COMPLY WITH TITLE IX

- Have changes been made in any of the following areas:  
Facilities and equipment?  
Rules?  
Dress?  
Discipline?  
Scheduling?  
Are there any other areas where changes have been made?

### CHANGES YET TO BE MADE TO BE IN FULL COMPLIANCE

- What do you feel still needs to be done?  
What do you plan to do for next year?  
What things will pose the most difficulties for your school to reach compliance?

### PERSONAL VIEWS OF THESE CHANGES

- What are your personal views on coeducational physical education classes?  
What proportion of the program do you feel should be coed?  
Is there anything mandated by Title IX which you find inconsistent with your overall philosophy or beliefs about physical education or the needs of students in physical education?  
Are there any activities that you do not feel appropriate for coed instruction or participation?  
Are there any classroom practices/policies which you believe are best set differently for boys and for girls?  
(Discipline? Dress? Showers? Other? )

## AVAILABILITY OF INFORMATION AND NEED FOR ASSISTANCE

- What have been the sources of your information about Title IX?
- Has the information been adequate?
- What in-service programs in the school have related to Title IX?
- Have materials been provided to teachers about Title IX?
- To students?
- What resources/assistance have been available to aid in planning a coed curriculum?
- What kind of assistance would you like to have to enable you to better implement Title IX?
- Are you aware of any weaknesses in your own background or approaches to students that you would like help with to better prepare you for teaching coed physical education?
- Do you know who the Title IX Coordinator is in your school?
- Do you know what the school's grievance procedure is for a student or staff member with a Title IX complaint?

## SUMMARY COMMENTS

### POSITIVE AND NEGATIVE ASPECTS (PROBLEMS)

- In what ways has Title IX strengthened your physical education program?
- What have been the major problems or difficulties faced?
- How has each of these been handled?
- How have complaints received related to coed physical education related to those from single-sex physical education?
- Number? Nature? Source?
- Has the school had special concerns related to safety and liability in coed classes? How has this been handled?
- Have coed classes resulted in any change in the number of discipline problems faced by teachers? Male? Female?

### PERCEPTIONS OF EQUALITY WITHIN PROGRAMS

- Do you feel that Title IX is resulting in more equitable programs in physical education?
- What is your personal level of support for the requirements of Title IX?
- Where does Title IX fit with respect to other school priorities?
- Have any steps been taken to eliminate stereotypical attitudes in coed classes? Anything done about student "put-downs" of each other by sex?
- Has any formal evaluation been done of the coed program or other aspects related to equity in physical education?



### IMPLICATIONS FOR THE FUTURE

What do you project for the future in terms of physical education programs?

Do you feel that your undergraduate or graduate professional preparation was sufficient for teaching coed classes?

Do you have any recommendations for future professional preparation?

### PERSONAL AND COMMUNITY BACKGROUND

Age:

College Major: Undergraduate -

Graduate -

Sex:

Education: High School -

College -

Highest Degree -

Marital Status:

Spouse Employed?

Children: Boys -

Girls -

Sports Coached:

Subjects Taught:

H.S. Enrollment:

Age of P.E. Facilities:

Age Range of Faculty:

Ave. Age:

Sex Composition of H.S. Faculty: Males -

Females -

Socio-economic Status of Community:

Political Tone of Community:

Size of Community:

## STUDENT QUESTIONNAIRE

## PHYSICAL EDUCATION SURVEY

DIRECTIONS: For each question below select the one response that best or most closely represents your beliefs or feelings. Mark the letter of that response in the appropriate space on the answer sheet. Make no marks on this questionnaire. You need not write your name on the answer sheet, but please be sure to indicate your sex and grade in school.

FOR EACH ACTIVITY LISTED BELOW, INDICATE WHETHER YOU THINK IT SHOULD BE TAUGHT PRIMARILY IN A COED CLASS OR IN A SEPARATE SEX CLASS:

- |                             |          |              |
|-----------------------------|----------|--------------|
| 1. Archery                  | (a) coed | (b) separate |
| 2. Badminton                | (a) coed | (b) separate |
| 3. Basketball               | (a) coed | (b) separate |
| 4. Bowling                  | (a) coed | (b) separate |
| 5. Field Hockey             | (a) coed | (b) separate |
| 6. Fitness and Conditioning | (a) coed | (b) separate |
| 7. Flag Football            | (a) coed | (b) separate |
| 8. Folk Dance               | (a) coed | (b) separate |
| 9. Golf                     | (a) coed | (b) separate |
| 10. Gymnastics              | (a) coed | (b) separate |
| 11. Modern Dance            | (a) coed | (b) separate |
| 12. Soccer                  | (a) coed | (b) separate |
| 13. Softball                | (a) coed | (b) separate |
| 14. Stunts and Tumbling     | (a) coed | (b) separate |
| 15. Swimming                | (a) coed | (b) separate |
| 16. Tennis                  | (a) coed | (b) separate |
| 17. Track and Field         | (a) coed | (b) separate |
| 18. Volleyball              | (a) coed | (b) separate |
| 19. Weight Training         | (a) coed | (b) separate |
| 20. Wrestling               | (a) coed | (b) separate |

21. In general my feelings about coed physical education are
- very good
  - pretty good
  - not very good
  - very bad
22. This year in physical education I have been in a coed class
- all of the time
  - more than half of the time
  - about half of the time
  - less than half of the time
  - not at all
23. I feel that the best means of organizing students for coed p.e. is to
- assign the students to groups and not worry about the number of boys and girls
  - divide the groups so that there are half boys and half girls in each
  - use a skill test to determine groups by ability
24. In a coed p.e. class I feel that
- more time is spent on skills and drills than in a single-sex class
  - more time is spent actually playing the game than in a single-sex class
  - things are about the same as in a single-sex class
25. In a coed p.e. class I feel that
- more attention is paid to physical fitness and conditioning exercises/activities
  - less attention is paid to physical fitness and conditioning exercises/activities
  - about the same attention is paid to physical fitness and conditioning exercises/activities as in a separate-sex class
26. In coed p.e. I feel that there are
- more discipline problems for the teachers to handle
  - less discipline problems for the teachers to handle
  - about the same number of discipline problems as in a single-sex class

27. I feel that teachers in my coed p.e. classes have been
  - a. more strict than before
  - b. not as strict as before
  - c. about as strict as before
28. In a coed p.e. class I feel that there is
  - a. more danger of students getting injured
  - b. less danger of students getting injured
  - c. the same danger of students getting injured as in a single-sex class
29. With members of the opposite sex in the class I feel
  - a. more confident (superior) about my skills
  - b. less confident (inferior) about my skills
  - c. the same amount of confidence as in a class of just my sex
30. In a coed p.e. class I feel that I
  - a. try harder than in a single-sex class
  - b. don't try as hard as in a single-sex class
  - c. try the same as in a single-sex class
31. In a coed p.e. class I feel that my skills
  - a. improve more than in a separate class
  - b. improve less than in a separate class
  - c. improve the same as in a separate class
32. I feel that teachers in a coed p.e. class tend to
  - a. expect more out of the boys than the girls
  - b. expect more out of the girls than the boys
  - c. expect the same from both boys and girls
33. I feel that my grades in coed p.e. have been
  - a. better than in a class of just my sex
  - b. worse than in a class of just my sex
  - c. about the same as in a class of just my sex
34. With members of the opposite sex in the class I feel that p.e. is
  - a. more fun
  - b. less fun
  - c. about the same as before

35. If I could choose my p.e. teacher for a coed class I would choose
- the best qualified woman
  - the best qualified man
  - the best qualified woman and the best qualified man for team teaching
  - it wouldn't make any difference
36. I feel that the facilities (gymnasium, lockerrooms, playing fields, etc.) and the equipment for p.e. in my school are
- of better quality for the boys than for the girls
  - of better quality for the girls than for the boys
  - of equal quality for both boys and girls
  - am unable to determine
37. Do you know what Title IX is?
- yes
  - no
38. Do you know who the Title IX Coordinator is in your school?
- yes
  - no
39. If you felt that you were being discriminated against because of your sex, would you know with whom to file an official complaint in your school?
- yes
  - no

PLEASE WRITE YOUR ANSWERS TO EACH OF THE FOLLOWING ON THE BACK OF THE ANSWER SHEET:

40. Name one positive feeling you have about coed p.e. classes.
41. Name one negative feeling you have about coed p.e. classes.
42. Name one thing you think could be done to improve coed p.e. classes.
43. What are your general feelings about the equality of treatment and the equality of opportunity for girls and boys in physical classes in your school?

SUMMARY OF STUDENT RESPONSES  
TO QUESTIONS 40-43

40. Positive Feelings About Coeducational Classes

More fun	162
Social values, getting to know the opposite sex	159
Try harder to improve skills	68
Better program offerings	45
More equal opportunities	19

41. Negative Feelings About Coeducational Classes

There are differences in the capacities of boys and girls to perform; boys are more highly skilled, play on a higher level	91
Boys make girls feel inferior, show off; girls feel embarrassed	79
Classes are too rough; more apt to get hurt	53
Classes are not rough enough; boys are held back; there isn't much competition	43
There are unequal performance expectations for the girls and the boys	28

42. Improvements Suggested

Have broader activity offerings	82
Have the same expectations for both sexes	47
Equally divide the classes and the teams	39
Allow more student choice in activities	30
Have coeducational classes more often	19
Make coeducational classes optional	12

43. General Feelings About Equality

Classes and treatment are fair	447
Boys are treated better	36
Girls are treated better	6