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ABSTRACT

This handbook is designed to accompany seven instructional modules which were developed to help physical educators reduce sex bias in secondary physical education classes. Module topics are: (1) introduction to stereotyping and discrimination; (2) sex-role stereotyping and its effects; (3) biological sex differences; (4) Title IX; (5) curriculum development; (6) teacher behavior; and (7) student performance evaluation. Although the modules are intended for self-instruction, they may be used in teacher workshops and in a variety of classroom settings, including methods courses and student teaching seminars. For each of the modules, activities are presented that include readings and films considered fundamental to the understanding of the topics presented. A reading on each module topic is also provided along with suggested group activities. Supplementary resources are listed, including print materials--books, articles, resource lists, journals, and magazines; non-print materials--16mm films, filmstrips, audio cassettes, and multimedia kits; and resource centers--organizations, publishers, and projects which are concerned with nonsexist education and women's issues. Each entry in the list is briefly annotated, and suggestions for use are provided. Alternative schedules for studying the modules are suggested, including four- or eight-hour workshops, seven- to eight-hour self-instruction, and selecting certain modules or activities on one topic. (JD)

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Leader's Handbook

Guide for Planning
Preservice and Inservice
Programs for
Secondary
Teachers

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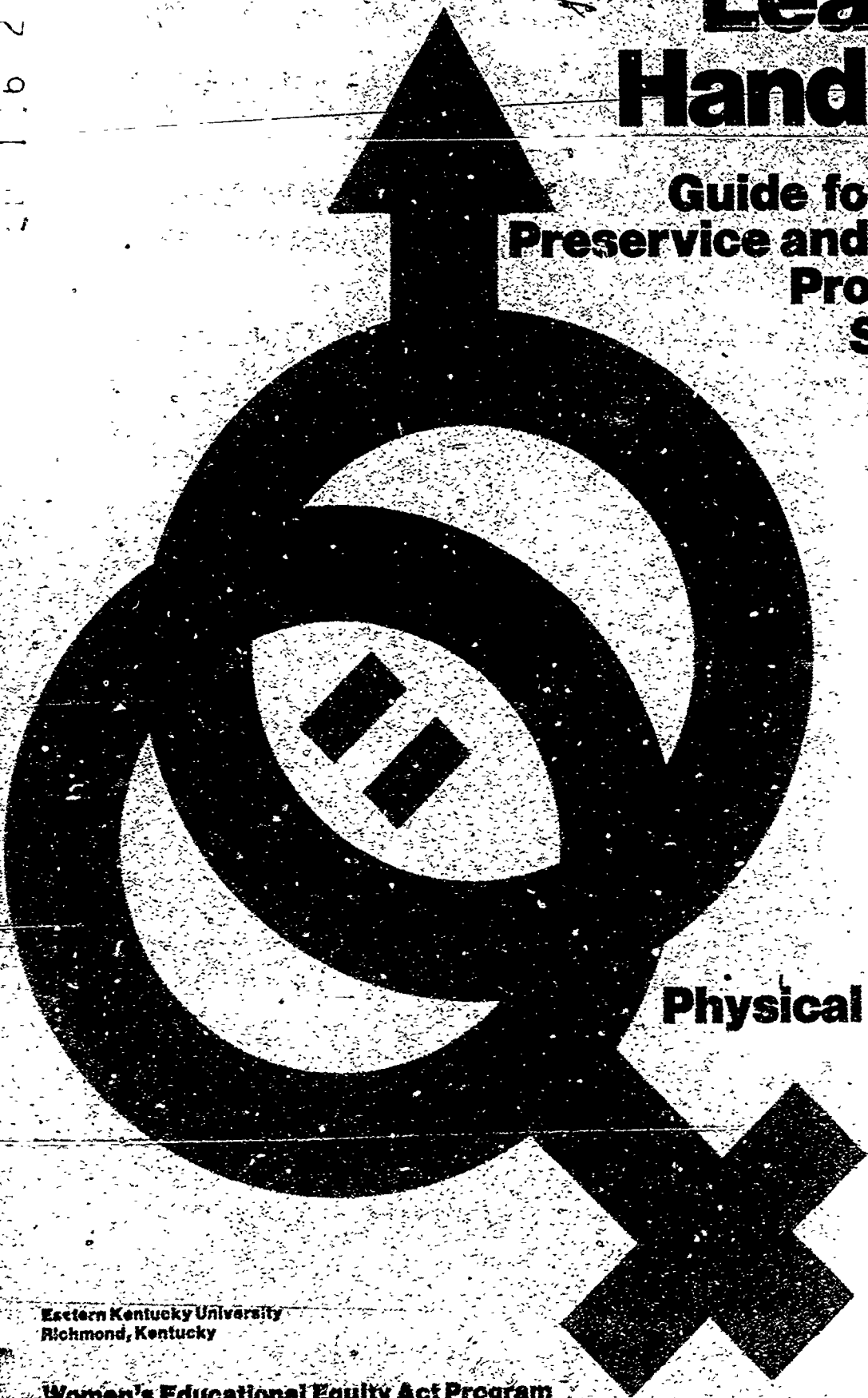
Physical Educators
for Equity

Eastern Kentucky University
Richmond, Kentucky

Women's Educational Equity Act Program
U.S. Department of Education

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PHYSICAL EDUCATORS FOR EQUITY

LEADER'S HANDBOOK

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*Supplementary activities not included in the modules

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INTRODUCTION

This handbook is designed to accompany seven instructional modules which were developed to help physical educators reduce sex bias in secondary physical education classes. The purposes of the modules are to:-

1. Increase teachers' knowledge of the extent of sex-role socialization and sex-role stereotyping in physical education.
2. Increase teachers' awareness of their own attitudes toward equality of opportunity in physical education and to encourage change in attitudes which promote discriminatory practices.
3. Assist teachers in developing practices, strategies, and skills which can be used in program planning and in instruction to promote full and fair opportunities for both girls and boys to benefit from participation in physical education.

Validation of the modules was conducted using preservice and inservice secondary physical education teachers as subjects. When all seven modules were used as an instructional package, the modules were shown to be statistically effective in increasing teachers' knowledge of sex-role stereotyping and educational equity in physical education and in changing teachers' attitudes toward sex-role differentiation in physical education.

Although the modules are designed for self-instruction, they are suitable for use in group settings such as sex-desegregation workshops, clinics on nonsexist education, and in a variety of classroom settings, including methods courses and student teaching seminars. When the modules are used in a group setting, the leader (teacher, facilitator, clinician) will probably wish to arrange for or prepare supplementary activities. This handbook was developed to assist leaders in accomplishing the purposes of the modules by providing additional information, reinforcing information in the modules by use of other media, promoting interaction among the module users, and presenting additional resources.

Following the "Introduction" and the "Alternatives for Scheduling" sections, activities are presented for Modules 1-7. These activities include readings and films considered fundamental to the understanding of the topics presented in the modules. The activities were designed so that completion of the modules and supplementary activities would take approximately 16 hours, the equivalent of one semester hour of credit. The basic time frame is one hour per module and one hour for additional activities supporting the module.

THE ACTIVITIES INCLUDED IN THE HANDBOOK ARE SUGGESTED AND HAVE NOT BEEN TESTED WITH MODULE USERS. LEADERS SHOULD FEEL FREE TO OMIT ACTIVITIES, TO SELECT OR CREATE NEW ACTIVITIES, TO ALTER THE ORDER OF ACTIVITIES AS NECESSARY TO REFLECT THE NEEDS/INTERESTS OF PEOPLE IN A SPECIFIC SITUATION.

To aid the leader in readily identifying activities other than those in the modules, supplementary activities are indicated by asterisks in the table of contents. Because the handbook provides only a guide, leaders will need to make appropriate introductions, transitions, conclusions, and summaries for the activities. The resource list at the conclusion of the handbook may prove helpful in developing alternative activities.

ALTERNATIVES FOR SCHEDULING

Although no data exist to support the occurrence of significant changes in teachers' attitudes and knowledge when selected modules (versus all modules) are completed, a leader may wish to use only certain modules and/or handbook activities. If selected modules only are to be used, the following points should be considered: (a) Modules 1-3 provide background information pertaining to sex-role stereotyping and sex discrimination, particularly in physical education, and (b) Modules 4-7 provide more practical information about what to do to reduce sex bias.

Below are possible plans for workshops, seminars, or courses of varying lengths. The amount of time devoted to the actual modules during group sessions may be decreased by having participants complete the modules outside the group sessions.

Seven- to eight-hour self-instruction

Have individual participants complete Modules 1-7 at their own pace. Provide opportunities for interaction at your discretion, as the leader.

Four-hour workshop

1. Orientation of participants.
2. Film: "A Woman's Place," or "To Be a Woman" and "To Be a Man," or "Hey! What About Us? Sex-Role Stereotyping in Physical Activity." Discussion of film.
3. Selected handbook activities/information from Module 2.
4. Selected activities/information from Modules 4, 5, 6 and the handbook.

Eight-hour workshop

1. Orientation of participants.
2. Selected handbook activities/information from Module 2.
3. Selected handbook activities/information from Module 3.
4. Selection by participants (individually or as a group) of two of the following modules and their handbook activities to complete. They should be chosen on the basis of participants' needs and interests:
 - a. Module 4, Title IX
 - b. Module 5, Curriculum Development
 - c. Module 6, Teacher Behavior
 - d. Module 7, Evaluation

Sixteen-hour workshop/seminar

Complete the modules and the handbook activities as directed on the following pages, varying the activities and sequence as needed to meet local requirements.

MODULE 1

INTRODUCTION TO STEREOTYPING AND DISCRIMINATION

OBJECTIVES

Upon completion of this module, participants will be able to:

1. Recognize stereotyping.
2. Become aware of how stereotyping affects them.
3. Define the following terms: stereotyping, sex-role stereotyping, sex discrimination, educational equity, sex-role socialization, and sexism.
4. Recognize examples of sex-role stereotyping and discrimination in physical education.

MATERIALS NEEDED

Films (can be obtained from the source listed), 16mm projector, copies of the article by Mayer (pages 11-13 of this handbook), copies of the checklist "Program Evaluation: Sex-Role Stereotyping and Sex Discrimination" (pages 15-16 of this handbook), Module 1.

ACTIVITIES (Select, omit, or rearrange to meet local needs.)

A. Introduction of Participants

It is suggested that all participants share the following information:

1. Name
2. Teaching responsibilities
3. Observations of cced classes in physical education

Possible observations:

- a. There is more interest in complying with Title IX than in learning.
- b. The variation in skills and the novelty of mixed classes have resulted in many teachers stressing social skills (i.e., getting along), rather than skill development.
- c. Most teachers of mixed classes have had limited experience with this kind of class organization.
- d. The teacher is concerned with controlling the aggressiveness of the boys while teaching assertiveness to the girls.

- e. The girls stop trying because they do not want to be embarrassed by being more successful than the boys.
- f. More time, which no one has, is required to work with coed classes.

B. Discussion: Attitudes and Stereotyping

Suggested questions:

1. What is an attitude? (It is a learned response which influences a person's thoughts, actions, and feelings; it is a readiness to act in a certain way toward others or objects.)
2. How are attitudes formed? (Ideas about the general characteristics of objects or people are formed by what a person has been told by social sources such as family friends, the media, and school. Personal experiences influence the formation of attitudes. Emotional experiences influence the formation of attitudes.)
Note: You might ask participants to trace to the roots their attitudes regarding physical fitness.
3. Why do we form attitudes? (Attitudes are formed to help us deal with the complexity of our environment, particularly by determining what to expect from certain objects or people.)
4. How are attitudes related to stereotyping? (Attitudes may be regarded as biasing mechanisms. Biasing mechanisms lead individuals to a fixed way of thinking about an object or a person. New information may have little influence on that way of thinking, which is a characteristic of stereotyping. People are aware of inconsistencies in beliefs; people are not always ready to change, because there is a high tolerance for inconsistency.)

C. Reading: "Changing Attitudes Is Not Easy . . . But Good Communication Helps . . ." by Deborah Mayer

The reading is on pages 11-13 of this handbook. Optional: Discuss the reading with the participants.

D. Module 1, pages 1-5

Ask participants to complete pages 1-5 of the module. Optional: Discuss with them Exercise 2.

E. Films: "To Be a Man" and "To Be a Woman"

1. Show the films described below. Both films should be shown during the same group session. (Note: Other films showing sex-role stereotyping may be available as well.)

- a. "To Be a Man," 14 min., 16mm, color. (Available from Audio Visual Services, Pennsylvania State University, University Park, PA 16802; \$11.00.) This film contains live interviews that form the basis for a study of boyhood, the pressures to conform, the showing of affection, male chauvinism, sexuality, and fatherhood.
 - b. "To Be a Woman," 14 min., 16mm, color. (Available from Audio Visual Services, Pennsylvania State University, University Park, PA 16802; \$11.00.) This film contains live interviews that form the basis for a study of girlhood, personhood, femininity, sexuality, stereotypes, and idealism.
2. Discuss the films. Sex-role-stereotyped behavior frequently appears in mixed-group discussions. You should encourage the participants to practice nonstereotyped patterns of conversation. For example, you can encourage alternate responses between women and men, so that neither sex dominates the discussion.

Suggested questions:

- a. What examples of stereotyping did you notice? of sex-role stereotyping?
- b. Did you notice examples of sex-role stereotyping that you have observed being practiced by you or by your colleagues in the school setting?
- c. What other examples of sex-role stereotyping have you observed in your teaching methods or in those of your colleagues?
- d. What evidence can you cite of the attempts to reduce stereotyping of girls and boys in the physical education setting?

F. Module 1, pages 7-14

Ask participants to complete pages 7-14 of the module. Optional: Discuss with them Exercise 4.

G. Alternative Learning Strategies: Coed Volleyball and Folk and Square Dance

Teachers are interested in structuring learning experiences that are effective for students having different skill levels and different attitudes about the kinds of activities often found in coed classes. Examples of two alternative approaches are provided below.

1. Coed volleyball

The activity of volleyball can be difficult to teach to a coed class because of the different levels of skill. The usual outcome is a dominance of play on the ball by the stronger and faster performers. When rules are used to ensure alternating contacts between inexperienced and experienced performers, additional stress is placed upon the inexperienced performers; this stress is counterproductive to learning. Try this alternative learning strategy:

- a. The game begins with a serve or a thrown ball. The server decides which option.
- b. The receiver has the option of catching the ball or executing a forearm pass that sends the ball to the setter.
- c. The setter has the option of setting the ball or catching and throwing it to the spiker.
- d. The spiker has no option but to spike the ball into the opponent's court.
- e. The fielder has the option of catching the spiked ball or passing it, using a variation of the forearm pass.
- f. The rally continues in this manner. The catching pattern should resemble the actual technique. The underhand catch and throw are used in place of the forearm pass to send the ball to the setter.

With this learning strategy, the students have choices about how to perform, based on their own skill development. It is not necessary to designate that girls use the throw-catch method and boys the volley technique. Each student can use those techniques which bring the most success to her/him. In the meantime, students can practice the gamelike technique whenever possible.

2. Folk and square dance

Teachers of dance units in secondary schools are often faced with classes composed primarily of one sex and of students having sex-biased attitudes about some, if not all, forms of dance. To cope with the former and to encourage a change in the latter, the following suggestions are offered:

- a. Stress that although folk dances illustrate cultures and their historical sex roles, in modern-education folk dance units provide rhythmic skills and social development for members of both sexes--equitably.
- b. Analyze basic skills and steps, pointing out that the form, position, rhythm, and footwork of the country dance shuffle, the polka, the waltz, etc., are not sexist. A good schottische or any other fundamental skill is neither male nor female; rather, it is precise in performance, regardless of age, size, or sex.

- c. Introduce dances and patterns without making reference to sex. For example, you can say to students:
- (1) "Troika is a Russian dance depicting a three-horse-drawn carriage designed for travel through heavy snow. Form trios to represent a team of horses for a Troika."
 - (2) "For our Appalachian running sets, we need couplets--a set of two couples--a traveling couple on the inside circle who face the home couple on the outside circle."
 - (3) "In an allemande, you extend your left hand to the person nearest you, other than your partner" or "With the left hand, turn with the nearest dancer from the couple beside you"
- d. Use nonsexist terms for roles. Eliminate male and female references (e.g., gents and ladies) to partner roles, saying instead:
- (1) "Partner 1 and Partner 2"; "dancer on the inside, dancer on the outside"; or "right-hand partner, left-hand partner."
 - (2) "The tallest on the inside circle"; or "the one with the shorter hair on the right side."
 - (3) "Start with the outside foot, the one away from your partner"; or "One's, hop on your right foot first; Two's, hop on your left foot first."
- e. Use nonsexist terms for dances and steps; for example, say "Firefighters' Dance" rather than "Firemen's Dance"; "daisy chain" or "chain across" rather than "ladies' chair"; and "four-hand star" rather than "gents' star."
- f. Incorporate patterns and dances in which partners are not needed, as in mass square dance figures: serpentine, twist, and grapevine; in and out; weave a basket; etc. Use single-line and circle dances requiring no partner, such as Yan Petit, Hora, Mayim, Cshebogar, Seven Jumps, and Ten Great Dancers (Ten Pretty Girls).
- g. Include mixers and an exchange of partners or roles after each dance. Discourage permanent pairings.
- h. Adapt partner positions and swings to ensure social ease, as follows:
- (1) Let partners side by side use a natural arm swing or a promenade handhold while they are walking or progressing forward. Let them extend their arms shoulder to shoulder, overlap their wrists, or place their hands at their hips in circles or lines.
 - (2) Substitute czardas and highland positions for closed and varsouvienne positions.
 - (3) Adjust closed social and buzz turns to use an open, elbow, do-si-do, or banjo shoulder-high position.

H. Module 1, pages 15-18

Have participants complete Module 1 by reading pages 15-18.

I. Checklist: "Program Evaluation: Sex-Role Stereotyping and Sex Discrimination"

Have participants use the checklist on pages 15-16 of this handbook to evaluate their school's program, as well as their own behavior. As a further check of their understanding of terms, ask participants to indicate which questions on the checklist imply examples of sex-role stereotyping and sex discrimination.

CHANGING ATTITUDES IS NOT EASY . . .
BUT GOOD COMMUNICATION HELPS . . .*

Deborah Mayer

As you work to implement Title IX in your school, you become an agent of change. How can you be most effective in this role? What are the attitudes you are trying to change? Why do people have these attitudes? What part can communication play in changing attitudes?

Before confronting these questions, consider what an attitude is: A learned predisposition to react to symbols (e.g., a word, an idea, such as masculine, feminine, athlete) and objects in either a positive or negative way. (Consider as attitudes: prejudices, biases, convictions.)

An attitude has three basic aspects: (1) the cognitive, (2) the affective, and (3) the behavioral -- that is, what a person knows, how a person feels, and how a person acts with respect to the given symbol or object.

The intensity of an attitude depends on the interaction of these three attitude components. Changing one or more of the three components might change the attitude.

How do you change an attitude? Attitude changing is a process in which an individual (your audience) receives a message from another individual (you, the source), accepts or rejects the message, retaining it to some degree, and, finally, acts on it. The action may be to reverse or to intensify the currently held attitude. Whichever direction it goes, the attitude has changed.

There are three variables in this process of changing attitudes: the source, the message, and the audience. From extensive research on attitude change, certain generalizations can be made about the interaction of these variables.

1. How you, the source (or change agent), are perceived will affect the impact of your message. Do you have personal characteristics -- appearance, manner -- in common with your audience? What is your manner of presentation? Can you make them believe that change will be rewarding? -- that you will know and care if they change? Have you had a previous good experience with your audience? Remind them of it if you have. What is your credibility? Be sure your information is reliable. And, show your commitment to your position.

*Reprinted by permission from Deborah Mayer, *Potential*, Institute for Equality in Education, Denver, Colorado, Spring, 1978.

2. The way you present your message will affect attitude change. To foster attitude change, focus on areas of agreement first. Then present the problem or issues along with some solutions. Draw a conclusion, and point out specific actions that need to be taken. Put your strongest points first or last -- don't bury them in the middle -- and don't hesitate to repeat your strongest arguments. If your audience disagrees with you, or if they are likely to hear the other side, present both points of view or, in some cases, at least be sure to acknowledge the other side. If the change you are advocating is radically different from the status quo, suggest incremental changes.

3. Your audience (administrators, teachers, students, parents, the community) will determine the type of message and the manner of presentation that you choose. Consider the attitude your audience holds and why they hold that attitude. What is the function of the attitude in their lives, and how will that function be affected? (Some attitudes give order to a person's life by helping to set priorities -- which should come first, self or others, work or leisure?) If the attitude protects the holder's ego or expresses a value, any change will be seen as a threat to that person's way of life.

Consider, too, the group membership of your audience. Because group membership (e.g., a church; an informal group of Little League parents) affects attitudes, it is important to determine how important the group is to an individual, and what benefit the group provides a person for holding on to an attitude.

Uncertainty, tension, and resistance are likely to result in the face of radically new information or procedures. By introducing new procedures, you are challenging a person's way of viewing the world and running his or her life.

If one component of an attitude is changed, then the audience is likely to change the other components so that all three are once again consistent. When the audience has a low degree of involvement and commitment (they feel one way but act another) the attitude will be easier to change. It will be hard to change the attitude if the three components are consistent.

You can change the cognitive (knowledge) component with new information. The affective (feeling) component often can be altered through personal experience on the part of the audience. Behavior can be changed by legal requirements, such as those made by Title IX. Remember, changing only one of these helps to change the other two, and, eventually, the entire attitude.

Once you have considered your audience in order to determine the content of and manner of presenting your message, consider the following tips for good communication:

- (1) Be ethical. Change is threatening to most people. You can lessen that threat by being open and honest. Facilitate two-way communication by treating others as persons of value. Recognize their feelings and emotions and diligently avoid being judgmental. Separate issues from personalities. Think about your purpose: are you interested in mutual understanding and growth, or manipulation?
- (2) Listen. Listening is as important as speaking, but we don't often do it very well. Listen for what the other person means, not just what he/she says. Active listening means getting involved with another person, with all the accompanying give and take.
- (3) Ask questions. By asking the right questions you can create a positive atmosphere. Don't assume that people always understand what you're saying or that you know why they are reacting as they are. Ask them!
- (4) Watch your language. Avoid putting others on the defense by the way you say things (e.g., "Let's look at the situation" rather than "We have a problem"), and avoid labeling people. What you call things soon becomes a part of what they are. Labeling people (uninterested, unwilling to change, for example) may be perceived as making personal attacks.
- (5) Analyze the process. What is happening? Why? Is it acceptable to you and to the other party?

Changing attitudes is not easy, but with a better understanding of what goes into an attitude and what an attitude does for the person who holds it, with knowledge of how attitudes change and the communication techniques that foster attitude change, perhaps we can more effectively change negative attitudes towards Title IX and sex equality in education.

Note: References available on request.

PROGRAM EVALUATION:
SEX-ROLE STEREOTYPING AND SEX DISCRIMINATION*

	<u>YES</u>	<u>NO</u>
1. Is your program geared to helping every student develop a personally rewarding, lasting, challenging level of physical competence?	___	___
2. Does your program offer coed "lifetime" sports for <u>all</u> students?	___	___
3. Does your program announce courses by activity rather than by sex?	___	___
4. Do girls and boys have equal access to facilities and equipment?	___	___
5. In classes which are not sex-segregated, are boys and girls separated in certain activities? Which ones?	___	___
<hr/>		
6. Are boys and girls encouraged to perform at the same level, for example, in doing push-ups and in running?	___	___
7. Are girls and boys encouraged to participate in activities which have traditionally been reserved for members of the other sex?	___	___
8. Do you expect competence from boys and failure from girls?	___	___
9. Do you feel it is important for boys to be athletic and girls to be graceful?	___	___
10. Do you ever organize exercise for girls to "improve their figures"? For boys?	___	___
11. Do you excuse girls from performing some exercises (such as chin-ups) while requiring boys to try them all?	___	___
12. Do you encourage boys to have a healthy respect for and confidence in their bodies and girls to regard their bodies with anxiety and fear?	___	___

*Adapted from Feminists Northwest. Project Awareness Training Manual. Developed pursuant to contract OEGO-75-00202 with the U.S. Office of Education, Department of Health, Education, and Welfare. Seattle, WA, 1977, pp. H3-63-H3-65.

- | | <u>YES</u> | <u>NO</u> |
|---|------------|-----------|
| 13. Do you pity boys who are unable or unwilling to be athletic? | — | — |
| 14. Do you generally praise girls as well as boys for being strong? | — | — |
| 15. Is conditioning/fitness emphasized for both sexes? | — | — |
| 16. Do women teachers participate in sports to provide girls with active, competent role models? | — | — |
| 17. When you speak about accomplished athletes, do you include women in your examples? | — | — |
| 18. Do girls in your coed classes feel they are receiving equal attention and training? | — | — |
| 19. Do you give additional practice and skill-building instruction to girls who need extra help, so they can overcome their socialized fear of participating? | — | — |
| 20. Do you teach skills to everyone, so that everyone has the opportunity to play? | — | — |
| 21. Etc. (Write your own.) | | |

MODULE 2

SEX-ROLE STEREOTYPING AND ITS EFFECTS

OBJECTIVES

Upon completion of this module, participants will be able to:

1. Identify some effects of sex-role stereotyping on girls and boys and men and women.
2. Recognize examples of sex-role stereotyping in physical education.
3. Identify some effects of sex-role stereotyping on physical education, as such stereotyping occurs in three areas: achievement, self-esteem, and physical well-being.

MATERIALS NEEDED

Film(s) (can be obtained from the sources listed), 16mm projector or filmstrip projector and cassette player, copies of article by Tibbetts (pages 21-29 of this handbook), assorted magazines (Time, Newsweek, Ms., Ladies' Home Journal, Outdoor Life, Sports Illustrated, Women's Sports, Ebony, Essence, etc.), Module 2.

ACTIVITIES (Select, omit, or rearrange to meet local needs.)

A. Selection of Pictures from Magazines

Form small groups, and allow participants to complete either of the following options, as they choose:

1. Using pictures from magazines, have participants put together two collages, one to represent "American Society's Ideal Man" and one to represent "American Society's Ideal Woman." When participants have done this, discuss their collages, using the following questions:
 - a. Are your collages accurate pictures of what women and men in our society are expected to be?
 - b. Did you have difficulty finding all the kinds of pictures you wanted? What are the implications of that?
 - c. Does your collage represent how you personally feel? What changes would you make?
 - d. Are the images represented by the collages stereotyped? What are the effects of such stereotyping?

2. Using the magazines provided, have participants find as many pictures as possible for the following categories: women working outside the home, women playing actively, women in leadership positions, men doing and enjoying housework, men caring for children competently, and men as employees of women. Upon participants' completion of this task, discuss the picture collections, using these questions:

- a. Could you find pictures for each category?
- b. What factors might contribute to an abundance or a lack of pictures in a given category?
- c. Do you feel that the pictured activities are suitable or desirable?

B. Module 2, pages 1-8

Ask participants to complete pages 1-8 of the module.

C. Reading: "Sex-Role Stereotyping and Its Effects on Boys" by Sylvia-Lee Tibbetts

The reading is on pages 21-29 of this handbook. Because so much of the material about sex discrimination and sex-role stereotyping pertains to girls and women, participants may welcome information about boys and men. Another excellent source is David Sadker's Being a Man: A Unit of Instructional Activities on Male Role Stereotyping (for sale by the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402; stock number 017-080-01777-6).

D. Film(s): "We Are Women" and/or "Male/Female: Changing Lifestyles"

You may wish to show one or more of these films at varying times throughout presentation of the first three modules.

1. "We Are Women," 29 min., 16mm, color. (Available from Motivational Media, 8271 Melrose Avenue, Los Angeles, CA 90046; \$375.00.) Uses dramatic vignettes, brief documentary interviews, and historical artwork to show the origins of the traditional roles of women. Shows that men have also been conditioned into roles to an extent that affects their health and lifespan. The film is narrated by Helen Reddy.
2. "Male/Female: Changing Lifestyles," color filmstrips/cassettes, in four parts: (a) "Biology and Behavior" (time, 11:52); (b) "The Old Traditions" (time, 17:57); (c) "Modern Trends" (time, 15:52); and (d) "Young People Speak for Themselves" (time, 19:25). (Available from Educational Audio Visual, Inc., Pleasantville, NY 10570; \$92.00 plus postage and handling.) Provides background information on the development of sex roles for both women and men; shows the effects of stereotyping and how roles are changing.

E. Module 2, pages 9-15

Ask participants to complete pages 9-15 of the module.

F. Module 2, pages 13-16

Ask participants to complete Exercise 3 in small groups. Then discuss with them the possible responses that are listed on page 16.

G. Module 2, pages 17-19

Ask participants to complete pages 17-19 of the module.

H. Module 2, pages 19-24

Ask participants to complete Exercise 4. Then discuss with them the possible responses that are listed on pages 20-21.

I. Role Plays

Role playing provides opportunities for participants to express their ideas without fear of being criticized (i.e., "it's the character's idea"). Ask participants to form groups of from two to eight persons each and to select a situation from one of the options below; alternatively, participants could devise a situation of their own. Then have the participants role play the situation for the entire group.

1. Two people: Students, one male and one female, are describing their experiences in their coeducational physical education class.
2. Two people: Students, both male or both female, are discussing a possible career choice in physical education.
3. Three people: Three teachers are in an inservice session. While they are reviewing the schedule of classes for the next year, the discussion reveals the interactions of different attitudes, past frustrations, and plans for change in the present program:
 - a. Teacher 1 is passive, dislikes change, and likes the status quo in the present program.
 - b. Teacher 2 is aggressive, is biased in favor of his/her own sex, and wants more emphasis placed on traditional activities in single-sex classes.
 - c. Teacher 3 is assertive, favors all coed classes and team teaching, and places primary emphasis on providing equal chances for both sexes.
4. Four to six people: Physical education teachers and coed Leaders Club members are discussing allocating responsibility during class.
5. Six to eight people: Class representatives and two physical education teachers are evaluating a new program in physical education.

SEX-ROLE STEREOTYPING AND ITS EFFECTS ON BOYS*

Sylvia-Lee Tibbetts

In recent years, much has been said and written about sexism--a term which may be defined simply as "discrimination on the sole basis of gender" (Burton, no date). Men and women in our society are trained from infancy to fulfill different, sex-typed roles (Bem & Bem, 1975; Broverman, Broverman, Clarkson, Rosenkrantz & Vogel, 1970; Lee & Gropper, 1974). For example:

Women are perceived as relatively less competent, less objective, and less logical than men; men are perceived as lacking interpersonal sensitivity, warmth, and expressiveness in comparison to women (Broverman, Vogel, Broverman, Clarkson & Rosenkrantz, 1972).

Although some data describe the harmful effects of sexism on the socialization of both boys and girls (Block, 1973; Engin, Leppaluoto & Fodor, 1973; Feminists, 1971; Weitzman & Rizzo, 1974, 1975), the greater part of this material stresses its adverse effects on females: girls are raised from birth to be less important, less active and less accomplished than boys (Tibbetts, 1975; Weitzman; Eifler, Hokada & Ross, 1972). Greater social value is ascribed to masculine than to feminine behaviors (Rosenkrantz, Bee, Vogel, Broverman & Broverman, 1968), and the things that men do are more highly regarded than the things that women do (Dornbusch, 1966; Lee & Gropper, 1974; Mead, 1949). If females demonstrate such "masculine" tendencies as independence and self-assertiveness, they are discouraged or damned with faint praise by being likened to "men" (Hudnut, 1928). The results of such consistent denigration of the feminine role appear early in the behavior of females. Although girls start off as better students than boys (Bem & Bem, 1975; Sadker & Sadker, 1974; Stanchfield, 1973), they gradually withdraw from competition with males (Sadker & Sadker, 1974; Tibbetts, 1975) as they learn that the boys are supposed to be the leaders, the doers, the winners (DeCrow, 1971).

Nevertheless, females are not alone in suffering from sexism in our society. Boys, too, are cramped by rigid sex-role stereotypes--images that require them to be strong, competent, fearless and brave, and never allow them to cry (Feminists, 1971; Weitzman et al., 1972).

In the same way that girls are constrained by images which stereotype them as pretty and passive, boys are constrained by images which stereotype them as strong and unemotional. [Such images] encourage both sexes to limit their development (Weitzman & Rizzo, 1975).

*Reprinted by permission from Sylvia-Lee Tibbetts, Journal of the National Association for Women Deans, Administrators, and Counselors, Washington, D.C., Spring, 1977.

Where It Begins

Sex-typing may be described as the teaching or learning of behavior appropriate to one's sex role. And the most potent factor in the sex-typing of individuals is probably the way parents treat their children (Fauls & Smith, 1956; Frazier & Sadker, 1973). The girl is treated more protectively and subjected to more restrictions and controls (Bem & Bem, 1975), while more demands to achieve and higher expectations are placed on the boy (Block, 1973; Mitchell, 1973). In short, parents channel the behaviors of their children in ways consistent with accepted patterns of sex-role behavior (Block, 1973).

Sex-typing goes on from early infancy when the mother treats her son as though he were sturdy and shows pleasure when his behavior fits the image (Hoffman, 1973), while girls are treated as if they are more fragile (Bem & Bem, 1975; Hoffman, 1973), and are encouraged to be more passive (Mitchell, 1973). By the time a child is five years old, he is fully aware of the behavior expected of him and has learned to identify with the appropriate sex role (Fauls & Smith, 1956; Ward, 1969). However, for the boy, more than for the girl, it seems to be vitally important that he understand his sex role, since it appears that "high self-esteem in males is a function of early success in recognizing and adopting masculine behavior" and is "contingent on continued success in meeting cultural standards of masculine achievement" (Hollender, 1972).

For a number of reasons, the male appears to have a more difficult time than does the female in developing the sex role so necessary to his self-esteem:

1. Male self-esteem is contingent on what is accomplished, rather than what one is (Block, 1973; Hollender, 1972). A boy receives the message that he must be a doer, a solutionizer. He must be instrumental and solve problems (Nelson & Segrist, 1973). It is the belief of some writers that boys have a more difficult time establishing their sex-identity because they must prove themselves, while girls need simply to be (Hollender, 1972):

A distinction reiterated in many different sources which both characterizes and explains this difference in the relative difficulty of girls' and boys' attainment of sex-role identity is that girls and women "are" while boys and men "do": feminine identity is "ascribed," masculine identity "achieved" (Chodorow, 1971).

In a study of the attitudes of middle class fathers (Aberle & Naegele, 1952), it was found that "without exception fathers desire college training for their boys," while, although a majority of fathers plan a college education for their girls, they are more willing to admit that girls may not go. "Most of these men would prefer that their daughters marry, or expect them to." The fathers were pleased "if their boys display responsibility and initiative, perform well in school, stand up for themselves, show athletic ability, emotional stability," but it was enough for the girls to be sweet, nice, pretty and affectionate. In general, boys learn

that they must make an effort to enter the world of men; "society places the burden of proof of maleness on growing boys" (Firester & Firester, 1974). Girls are not similarly required to "prove" their femininity.

2. The male is more severely punished than is the female for acting in ways typical of the opposite sex (Hartley, 1959; Lynn, 1961).

The girl who is a "tomboy" or who chooses boys' toys and books is usually accepted without severe censorship--at least, as long as she is quite young (Chasen, 1974; Chodorow, 1971; Flammer, 1971; Hartley, 1964; Lynn, 1961). However, let a little boy ask for a doll, as almost all little boys do (Spock, 1972), or dress up in a skirt, and the reaction of his elders is one of shock and anxiety (Fields, 1971).

—It would be unheard of for boys to wear dresses; if they want to cook or play with dolls, do not like sports, or are afraid to fight, this is cause for panic by parents, educators and psychologists (Chodorow, 1971).

Boys get the message that they must avoid chores that are defined as feminine (Nelson & Segrist, 1973). Girls may be tomboys, but boys are not allowed to be "sissies" (Chasen, 1974; Engin et al., 1973; Maccoby, 1966), and boys who behave in a manner that suggests femininity are "singled out for special concern" (Engin et al., 1973).

Neither are males free to express their feelings as girls are (Block, 1973; Nelson & Segrist, 1973), and so they suffer from having to stifle their emotions in order not to risk appearing unmanly, or even homosexual (Olds, 1973). Males must "fight . . . not cry, tremble, scream or run. They must stay cool, take care of themselves, keep their own counsel" (Sexton, 1970). If he cries or expresses fear, a male is unacceptable (Weitzman et al., 1972)—a "sissy" (Feminists, 1971). Yet, the male, who is required to be so strong, is much more vulnerable to stress (Firester & Firester, 1974). Men are under more pressure than women—they have fewer escape valves, commit more suicides, and, if single, are more likely to be mentally ill (Sexton, 1970).

There appears to be strong "emotional resistance" (Chasen, 1974) to boys' engaging in "feminine" activities, and this resistance is often expressed by punishment at an early age (Hartley, 1959). The anxiety arising in boys from punishment for behaving in "feminine" ways is described by Hartley (1959) as "virtual panic at being caught doing anything . . . feminine," and, in [a] similar vein, Zimet (1972) remarks, "We know that boys show uneasiness, anxiety, and anger when they are in danger of behaving in ways regarded as characteristic of the opposite sex."

3. There is greater conflict regarding behavior in the development of the male than of the female.

The boy learns, on the one hand, that he is expected to act "masculine"--assertive, active and independent (Sadker & Sadker, 1974). He believes that adults expect him to be noisy and naughty, to mess up the house, get dirty and get into more trouble than girls do (Hartley, 1959). No boy is regarded as "all boy" unless he demonstrates aggressiveness (Peltier, 1968). But then, he discovers that his highly esteemed "masculine" behavior is not compatible with the standards of many with whom he comes in contact. When he gets to school, his training in independence and mastery is checked (Firester & Firester, 1974; Sadker, 1973); he finds himself in direct conflict with the authority of the teacher and becomes "troubled and confused by the female-dominated classroom" (Peltier, 1968).

The teacher, usually female, sets the standards for behavior in the classroom and requires students to be polite, clean, neat, nice, and obedient (Sexton, 1970; Shelly, 1973). The ensuing conflict between the "feminine" school environment and the boys' independence training may be related to the higher incidence of social and academic problems evident in boys as compared to girls (Fagot & Patterson, 1969). Taught to shun all "womanly" things, boys in school are placed under the jurisdiction of women and forced to "knuckle under" to that which they have been taught to despise (Hartley, 1959). "The pressure of being subjected to the impossible demand that they act manly, but live by feminine standards, undermines the self-esteem of many boys" (Firester & Firester, 1974).

There is a greater incidence of failure in social functioning in males as compared with females (Hartley, 1959), and masculinity is associated with serious, even criminal, misbehavior as well as with poor scholarship. "Delinquency rates notoriously have favored young males" (Hartley, 1959). Such tendency to misbehavior is seen as a result of conflict in a boy's understanding of the behavior expected of him. His boisterous, aggressive, "masculine" role consistently annoys the same people who would be upset if he behaved in a quiet, passive, "feminine" manner. He's damned if he does and damned if he doesn't.

We suspect that the atmosphere of disapproval surrounding the average small boy as contrasted with the small girl may well be a factor in the nonconformity and resistance to authority which are often attributed to male adolescents and adults in our society (Tuddenham, 1952).

It is also possible that serious misbehavior in males is, in part, the result of tacit social acceptance of masculinity and criminality as two sides of the same coin. A comment by Grambs and Waetjen (1966) is revealing:

These young men [are] certainly masculine--or they would not have dropped out of school and gotten into trouble with the authorities!

4. Males are less secure than females are about their own sex-identity.

One reason for males' anxiety over their sex-identity may be that they have greater difficulty than females in achieving sex-role identification (Lynn, 1964). Some writers believe that all children identify primarily with their mothers, but, while girls can continue this identification, boys must, at some point, shift and identify with men (Biller, 1970; Lynn, 1961, 1962, 1964). This results in a sexual identification conflict (Biller, 1970).

Sex-role identification is described by Lynn (1961) as "the actual incorporation of the role of a given sex, and . . . the unconscious reactions characteristic of that role." It is said to occur earlier for girls than for boys (Lynn, 1961; Ward, 1969), because the girl is closer to the same-sex parent (Lynn, 1961). She has models nearby at all times, in the persons of female caretakers and teachers. The boy, meanwhile, is under pressure to adopt the masculine role, but has inadequate exposure to male models (Hartley, 1959; Lynn, 1962). Lynn (1962) suggests that boys and girls learn their sex-role identification in different ways. The males tend to identify with a cultural stereotype and females tend to identify with their own mothers.

Hollender (1972) suggests another possible reason for males' anxiety over sex-role identification: "Male self-esteem may be less stable through adolescence and young adulthood as it continues to be contingent on what is accomplished rather than on who he is." Society demands that a male "prove himself." It is also possible that the greater latitude allowed girls to engage in "boys'" activities makes the girls less subject to criticism for "unfeminine" behavior. Therefore, anxiety-creating criticism and punishment for inappropriate behavior is neither as severe nor as frequent for girls as it is for boys; and, since others do not so frequently call their femininity into question, girls have less reason to be concerned about their sex-identity.

5. The males must always be "best."

It is a burden for the boys always to have to be better than a girl (Olds, 1973). Females are capable of being as able and accomplished as their male peers; yet, if a male is to measure up to the masculine behavior expected of him, he cannot be outdone by a feminine "inferior."

Females have always contributed to the myth of their own inferiority (Tibbetts, 1975) and, so long as they are willing to do so, males' ego, where based on their "superiority" to women, is unshaken. But where females have not learned or refuse to play the game, the situation can be menacing to males:

An increase in the apparent capability of females, whom they [males] are taught at all cost to avoid emulating and whom they are pressured to best in order to validate their masculinity, would be particularly threatening (Hartley, 1960).

Since Hartley wrote in 1960, women have made a widely recognized effort to assert themselves and disclaim their "inferiority." Instead of playing the feminine game, they have revealed themselves to be the true equals of men in many areas. The cultural model of masculinity emphasizes a male who is autonomous, strong, independent, and able to make up his own mind, follow his own direction, and get along without much help or support from others (Sexton, 1970). But women, too, are able to adopt this model of behavior. While it may be a model that is often difficult to attain in today's society (Sexton, 1970), men who do not attain it are "failures," while women who do not are not scorned for such lack of success. To the male trained to believe that female is inferior, the experience of confronting female equality may be devastating.

Conclusion

It is not only females who need to demand liberation from their restrictive, stereotyped roles--males, too, must be freed. They must be allowed to do "boyish" or "girlish" things as they choose (Sexton, 1970); they must be encouraged to explore their possibilities to the fullest (Nelson & Segrist, 1973). The traditional role definitions that have deprived women of their full development have similarly deprived men of theirs. "If it is unfair to women to say that only men should be aggressive and competitive, it is unfair to men to say that only women should be nurturant and supportive" (Millsom, 1973). Sexual identity, instead of referring to a narrow range of characteristics and behaviors for males that is separate and apart from a similarly narrow range of characteristics and behaviors for females, should mean "the earning of a sense of self in which there is a recognition of gender secure enough to permit the individual to manifest human qualities our society, until now, has labeled as unmanly or unwomanly" (Block, 1973).

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MODULE 3

BIOLOGICAL SEX DIFFERENCES

OBJECTIVES

Upon completion of this module, participants will be able to:

1. Recognize that inaccurate assumptions about biological differences have been used to justify different opportunities for boys and girls in physical education.
2. Recognize that tendencies to generalize about physical and performance differences form the basis for sex-role stereotyping.
3. Recognize some common misconceptions about girls and women.
4. Recognize that there are ways to conduct physical education programs which consider performance differences yet do not discriminate against girls or boys.

MATERIALS NEEDED

Standard weight scale, wastebasket, stopwatch, space with parallel lines marked 15 feet apart, copies of the two articles by Chrietberg (pages 39 and 41-45 of this handbook), supplementary readings (annotated listing on pages 35-37 of this handbook), Module 3.

INTRODUCTION

This section of the handbook provides much material to supplement the information found in Module 3. Leaders may wish to use the articles and supplementary readings to clarify ideas, to provide examples, to stimulate discussion, and/or to summarize a presentation.

ACTIVITIES (Select, omit, or rearrange to meet local needs.)

A. Discussion: Biological Sex Differences Related to Motor Performance

1. Have each participant list biological sex differences that might be assumed to influence motor performance.
2. Have participants group the items on their lists, as follows:
 - a. Functional differences--those which relate to physiological and performance factors.
 - b. Structural differences--those which are associated with anatomical, physical-growth, or mechanical factors.

3. Discuss: Which of the biological sex differences listed are considered to be universal; that is, which differences exist everywhere, between all men and women? (Explanation: Universal differences are difficult to identify. It is doubtful that any exist. The one fairly clear example of the existence of dimorphism--of two different forms--between men and women is in reproductive function.)
4. Have participants select those biological sex differences which they believe are influenced more strongly by genetic factors. Then have them select several that are influenced more strongly by social/environmental factors. (Examples of differences that seem to be strongly influenced by genetic factors are eye color and height. Weight is less strongly influenced by genetic factors than height is. The acquisition of movement skills in swimming, games of strategy, and tumbling is strongly influenced by opportunities available in the environment.)
5. Discuss: Can differences between boys and girls (women and men) justify providing different opportunities for each sex?

B. Module 3, pages 1-2

Have participants complete pages 1-2 of the module.

C. Reading: "Biology and Equity" by Agnes Chrietberg

The reading is found on page 39 of this handbook.

D. Discussion: Structural and Physiological Differences Lead to Performance Differences

1. Have participants identify some of the physiological or structural differences between boys and girls as the differences pertain to:
 - a. Cardiovascular endurance.
 - b. Muscular strength.
 - c. Structural features that affect leverage, rotary speed of limbs, and balance.
2. Have participants speculate about performance differences influenced by these factors.

E. Module 3, pages 2-6

Have participants complete pages 2-6 of the module.

F. Reading: "Biological Bases of Performance Differences" by Agnes Chrietberg

The reading is found on pages 41-45 of this handbook.

G. Measurement of Selected Physical and Performance Variables

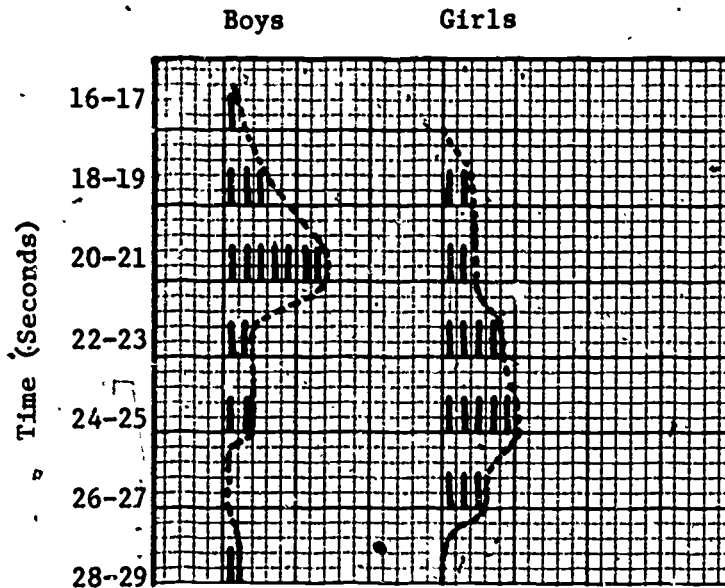
1. Using a group of from thirty to forty boys and girls of similar age, approximately an equal number of each, have participants measure one or more of the following variables. Instructions for administering the tests are given below. Ask participants to record the scores of boys and girls separately. (If boys and girls are not available, the participants may serve as the subjects. However, limited data will be available.)
 - a. Body weight: Use a standard weight scale and measure the weight of each subject (without shoes). Record the weight to the nearest pound.
 - b. Arm speed (arm circling): The test measures the speed with which the subject can circumduct (circle) the arm. The subject, while standing, leans over a wastebasket and, using the preferred hand, swings the hand around the top outside surface of the wastebasket. The hand must swing completely around the circumference of the basket. The hand is below the top of the basket. The subject's score is the number of revolutions made in 20 seconds.*
 - c. Agility (shuttle run): The test measures the speed with which the subject can change direction of body movement. Two parallel lines, 15 feet apart, are drawn on the floor. The subject stands behind one line and on the signal "go," runs to and across the other line, and returns across the first line. Both feet must cross each line. The subject's score is the length of time required to make five round trips.**
 - d. Optional: Have participants select a physical measure or motor-performance test that is suitable for the situation.
2. For each variable measured, have participants make a frequency distribution similar to the example shown on the following page.

*Edwin A. Fleishman, The Structure and Measurement of Physical Fitness, (Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1965), pp. 80-81.

**Fleishman, p. 83.

Example: Distribution of scores of 18-year-old boys and girls on the shuttle-run test. The data shown are an approximation of normative data reported by Fleishman.*

Distribution of Shuttle-Run Scores
of 18-Year-Old Boys and Girls



| = tally representing the
score of one subject

Turn the chart one-quarter turn counter-clockwise and observe the curve formed by the distribution.

3. Discuss: What observation can be made about the information presented in the chart? Ask participants the following:
 - a. Compare the central tendency of the distribution of boys and girls.
 - b. Compare the variability of scores of girls and boys.
 - c. Compare the overlapping of the curves.
 - d. If you select any boy or any girl at random, can you predict with any accuracy how that student will perform on the variable in question? What does this lead you to believe about statements which stereotype the performance of girls or boys?

*Fleishman, p. 112.

H. Module 3, pages 8-13

Ask participants to complete pages 8-13 of the module.

I. Module 3, pages 15-19

Ask participants to complete pages 15-19 of the module.

J. Options: Myths About Women and Men

You can ask participants to select either option described below and gather additional information about myths that have been used to limit opportunities or to restrict the participation of students.

1. Option 1: Review with participants that myths about the biological nature of men have sometimes been used to force participation in some activities and to limit or restrict participation in other activities. With participants, select readings from the books and articles listed below that discuss this topic. Then discuss with the group the information gained from these readings.

- a. Farrell, Warren. The Liberated Man. New York: Random House, 1974.

The expectation of men to conform to masculine stereotypes confines and limits men in the achievement of their full potential as persons. Farrell discusses the preliminary steps to changing masculine behavior to a more human kind of behavior. Of particular interest to male physical educators is the chapter entitled "SuperBowl: Sexism, Patriotism, Religion, Gangs and Warfare."

- b. Scott, Jack. "Men and Women in Sport: The Manhood Myth." In George H. McGlynn, ed., Issues in Physical Education. Palo Alto, Calif.: National Press Books, 1974.

Scott explores the idea that sports has served as an institution to perpetuate the manhood myth. Young men are manipulated in sports by those who make threats to their manhood.

2. Option 2: Have participants select one or more of the myths about women from Module 3. The references at the end of the module and the readings below are provided to help in a search for additional information. Ask participants to take notes on the readings and to share information with others in the group.

- a. Clark, Harris, ed. "Physical Education During Menstruation and Pregnancy." Physical Fitness Research Digest, No. 38 (July, 1978).

The Physical Fitness Research Digest is a publication of the President's Council on Physical Fitness and Sports. This issue presents a review of research on physical activity as it relates to menstruation and pregnancy. The review contains information about the effects of the menstrual cycle on physical/motor traits, physiological con-

ditions, and athletic performance. The review includes a position statement by the AMA Committee on the Medical Aspects of Sports which defuses many of the arguments that have been used to restrict the participation of women. An extensive bibliography is provided.

- b. Harris, Dorothy. "The Fat Factor." WomenSports, 4 (August, 1977), 52.

The average college-age woman has about 25 percent body fat, whereas the average man has about 15 percent body fat. Active women have considerably less body fat than sedentary women. Greater body fat tends to favor women who compete in distance swimming and running.

- c. Harris, Dorothy. "Fat: No Deposit--No Return." WomenSports, 4 (October, 1977), 53.

Lack of exercise may be the most significant factor in becoming overweight. Women have been led to believe that localized exercise can be beneficial in "spot reducing." The best evidence suggests that exercise causes fat reduction in those areas where the concentration is greatest, regardless of what the exercise is and how it is performed.

- d. Harris, Dorothy. "Lazy Bones: Shake a Leg or Break It." WomenSports, 4 (February, 1978), 55.

An active woman is less likely than a sedentary woman to have bone fractures when she is older. More older women than men suffer from osteoporosis (weakening of the bone). Active participation during the growing years may provide the stress necessary to develop strong bones.

- e. Harris, Dorothy. "The Monthly Mystery." WomenSports, 5 (January, 1978), 53.

Many women athletes who train seriously experience a condition called amenorrhea, cessation of the menstrual period. Having less body fat than normal has been associated with the condition. When strenuous exercise ceases, the menstrual cycle most often returns to its normal cycle.

- f. Harris, Dorothy. "The Pregnant Athlete." WomenSports, 4 (June, 1977), 46.

According to Harris, "The notion that pregnant women must be shielded from physical and emotional stress is finally beginning to fade." Women who are athletes have a much easier time with pregnancy and child delivery. They have better cardiovascular systems, muscle control, and abdominal strength. There is no hard evidence that athletic competition is harmful during pregnancy. Exercise during pregnancy should vary with the individual's needs.

- g. Harris, Dorothy. "Survival of the Sweatiest." WomenSports, 4 (November, 1977), 48.

Men sweat more and sooner than women when men participate in physical activity. Both men and women acclimate to exercise in heat, but women do so without increasing their

sweating rate. Women's estrogen level provides them with greater vascularization and allows blood to get to the surface for cooling. Thus, sweating in women does not start as soon, nor do women need to sweat as much for cooling to take place.

- h. Harris, Dorothy. "Update: Women's Sports Medicine." Women's Sports, 1, No. 2 (February, 1979), 43-45.

Harris reviews some of the effects of exercise that are of particular concern to girls and women. Short summaries include information about strength differences and weight training, greater fat content, menstruation myths, fertility, osteoporosis, heat dissipation, and sports injuries.

3. Additional readings--Options 1 and 2:

- a. Espenschade, Anne S., and Helen M. Eckert. Motor Development. Columbus, Ohio: Charles E. Merrill Books, 1967. Chapter IX, "Adolescent Behavior."
- b. Fasteau, Marc. The Male Machine. New York: McGraw-Hill, 1974.
- c. Gerber, Ellen W. et al. The American Woman in Sport. Reading, Mass.: Addison-Wesley Publishing Co., 1974.
- d. Harris, Dorothy V. DCWS Research Reports: Women in Sports. Washington, D.C.: AAHPER, 1971. Chapter VI, "The Female Sports Participant: Some Physiological Questions."
- e. Harris, Dorothy V., ed. Women and Sports: A National Research Conference. University Park: Pennsylvania State University Press, 1972. Section IV, "Physiological Considerations"; Section V, "Biomechanical Considerations."
- f. Hubbard, Ruth, and Marian Lowe. Pitfalls in Research on Sex and Gender. Staten Island, New York: Gordian Press, 1979.
- g. Jourard, Sidney M. "Some Lethal Aspects of the Male Role." In The Transparent Self. Princeton: Van Nostrand, 1971. Chapter 4, pp. 34-41.
- h. Klafs, Carl E., and M. Joan Lyon. The Female Athlete. St. Louis: The C. V. Mosby Company, 1978. Part II, "Anatomical and Physiological Factors in Sports Performance."
- i. Spirduso, Waneen Wyrick, ed. Bibliography of Research Involving Female Subjects. Washington, D.C.: AAHPER, 1974. "Physiological Aspects of Motor Performance," pp. 37-74.

K. Module 3, pages 21-26

Following the participants' completion of pages 21-26 of the module, discuss with participants how they might change their programs, in keeping with the suggestions provided in the module.

BIOLOGY AND EQUITY

Agnes Chrietberg

Some people feel that many performance differences are the result of differential socialization of the sexes. Others believe that genetic/hormonal factors are more important than social factors. The extent to which differences are controlled by intrinsic biological factors is unknown. If the current proliferation of research continues, we should know much more within the next decade about intrinsic biological mechanisms that account for sex differences. At present we do know that whatever intrinsic biological limits exist, the possibility for development and variation within those limits is extremely large and highly dependent upon opportunities available to individuals.

People who endorse educational equity in physical education have been criticized because they have tended to minimize and deemphasize biological sex differences when making program decisions. The argument that inequities are justified because of biological sex differences is usually based on two assumptions:

1. Differences among people are a reasonable basis for unequal social reward.
2. Intrinsic biological differences are a more legitimate basis for inequity than differences that result from social/environmental influences.

When these assumptions are made, discussing biological sex differences or arguing the degree to which differences are intrinsically biological is of little avail.

Educators who are concerned about equity should consider the social consequences of differences, whatever their origin. It is not necessary to know "how much" of an observed biological sex difference can be attributed to genetic/hormonal or social factors in order to make sound, ethical decisions that are components of a just educational system.

References

- Anastasi, Anna. "Heredity, Environment, and the Question 'How?'" In Anna Anastasi, Ed., Individual Differences. New York: John Wiley & Sons, 1967.
- Hudson, Jackie. "Physical Parameters Used for Female Exclusion from Law Enforcement and Athletics." In Carole Oglesby, Ed., Women and Sports. Philadelphia: Lea & Febiger, 1978.
- Lambert, Helen H. "Biology and Equality: A Perspective on Sex Differences." Signs: Journal of Women in Culture and Society, 4, No. 1 (1978), 97-117.

BIOLOGICAL BASES OF PERFORMANCE DIFFERENCES

Agnes Chrietberg

There are a number of physiological and structural differences between men and women which contribute to differences in their performance. The following material identifies differences in cardiovascular endurance, strength, mechanical factors, and body shape and relates those to motor performance.

Cardiovascular endurance. The best indicator of cardiovascular endurance is the maximum amount of oxygen that can be supplied to working muscles. This is commonly referred to as maximum oxygen uptake (VO_2 max). Untrained girls and boys up to ages 10 or 12 have virtually identical VO_2 max values. During adolescence, boys rapidly increase their capacity to assimilate oxygen during exercise. At maturity, untrained men have about 30 percent higher VO_2 max than untrained women have. The difference between the VO_2 max of trained men and women is not as great; differences of 12 percent have been reported (Hudson, pp. 32-33; Drinkwater, pp. 375-386).

Strength. Preadolescent boys are slightly stronger than preadolescent girls. Boys accelerate in strength development during adolescence, but the most rapid strength increases follow the adolescent growth spurt. Strength curves for girls during and following the adolescent growth spurt tend to level off. At maturity, the upper-body strength of women is about 50 to 60 percent of the strength of men. When strength measures are corrected for body size, women have about 80 percent of the strength of men (Hudson, pp. 34-35).

Mechanical factors. Some biomechanical factors which influence performance are mass, moment of inertia (resistance to rotary movement), limb length, and center of gravity. Production of force, power, and acceleration are affected by these factors.

Mechanical factors have been credited with contributing to differences between performances of men and women. The problem of establishing the effect of mechanical factors is more complex than generally assumed because of the number of factors operating simultaneously. For example, performance may be influenced by interaction of mechanical factors, motivation, past experience, maturation, body size, body composition, and physiological functions.

A statement such as "Women have a lower center of gravity than men; thus, they should be more stable (have better balance)," is not necessarily an accurate statement when related factors are considered. The center of gravity of the average female, when corrected for height, has been found to be one-half inch lower than that of the average male. The difference is probably not great enough to predict greater stability for women, particularly when men can be credited with a larger base of support (bigger feet) and greater strength to stabilize body parts (Hudson, p. 42).

The mechanics associated with speed of movement give women an advantage in one respect but not in others. On the average, women have shorter levers than men, which is a factor in the speed of rotation of body parts. However, women generally have a higher percentage of body fat than men, and that tends to increase inertia, thus decreasing speed of movement. Also, muscle strength which favors speed of movement is generally less for women than for men (Adrian, pp. 389-397).

Body shape. Body shape has been considered an important factor in the level of motor performance. Especially among highly skilled performers has this been true. Men and women performing at the championship level in a given sport exhibit similar patterns of body size and somatotype. As the level of performance increases, body patterns tend to become narrower. The chart on the next page shows anthropometric comparisons of men and women in Olympic competition. There is a remarkable similarity in body dimensions except for weight. The body-weight ratio of women to men is the variable in which the greatest difference between the sexes was present. Hebbelinck and Ross (p. 546), who originally reported these data, indicated that absolute size, such as that measured by body weight, is probably far more important biomechanically than proportions are.

The greater shoulder width and upper-body muscle mass of men has been associated with better performance in throwing, lifting, and striking. The ratio of biiliocrystal width to biacromial width (hip/shoulder ratio) has been strongly associated with capacity to perform motor skills.

Group data show that men have wider shoulders in relation to hips than women do; however, the difference has been exaggerated. For example, in one textbook, the subject of which is the female athlete, the following erroneous information was reported:

If one were to draw two geometrical figures, one to indicate the general proportions of the female trunk and the other those of the male, the former would be a truncated pyramid with the narrow portion uppermost, while the latter would be the reverse (Klafs and Lyon, p. 16).

If this were true, the general graphic proportions of men and women would be illustrated as follows on page 44.

Table 1. Anthropometric Comparisons of Participants in Mexico City Olympics (1968)*

Athletes	Sex.	Height		Weight		Trunk Length		Biacromial (Shoulder Width)		Biiliocrystal (Hip Width)		Biiliocrystal/Biacromial (Hip/Shoulder Ratio)
		cm	Ratio** w/m	kg	Ratio w/m	cm	Ratio w/m	cm	Ratio w/m	cm	Ratio w/m	
Gymnasts	women	157		50		47.5		35.2		25.5		.72
	men	167	.94	62	.81	50.6	.94	40.0	.88	26.7	.96	.67
Divers	women	160		52		48		36.5		26.5		.73
	men	172	.93	65	.80	51.3	.94	40.2	.91	27.4	.97	.68
Swimmers	women	164		57		49.5		37.2		27.0		.73
	men	179	.92	72	.79	53.5	.90	41.2	.90	28.1	.96	.68
Canoers	women	163		61		49.3		38		27.8		.73
	men	178	.92	74	.82	52.8	.93	41.7	.91	28.9	.96	.69
Sprinters	women	165		56		49		36.8		26.2		.71
	men	175	.94	68	.82	51.6	.95	40.3	.91	26.7	.98	.66
Weight Throwers	women	171		73		51.4		38.4		30.0		.78
	men	187	.91	103	.71	57.2	.90	44.6	.86	30.6	.98	.67

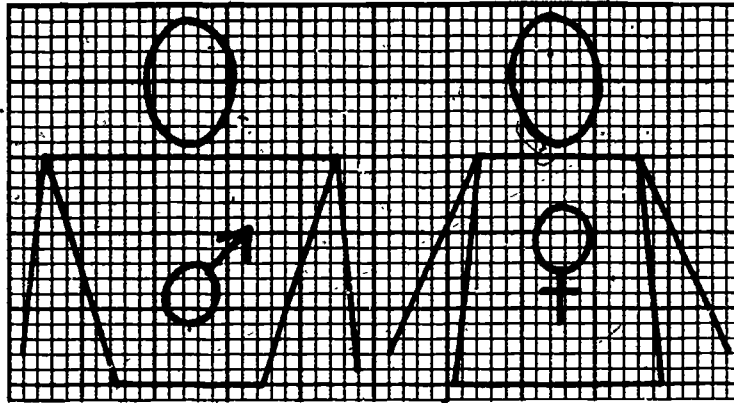
*Adapted and reprinted by permission from Carole Oglesby, Ed. Women and Sports: From Myth to Reality. Philadelphia: Lea & Febiger, 1978, p. 45.

**Ratio w/m = women to men ratio.

Stereotypes of Men and Women

Ratio:

$$\frac{\text{Hip}}{\text{Shoulder}} = .50$$



Ratio:

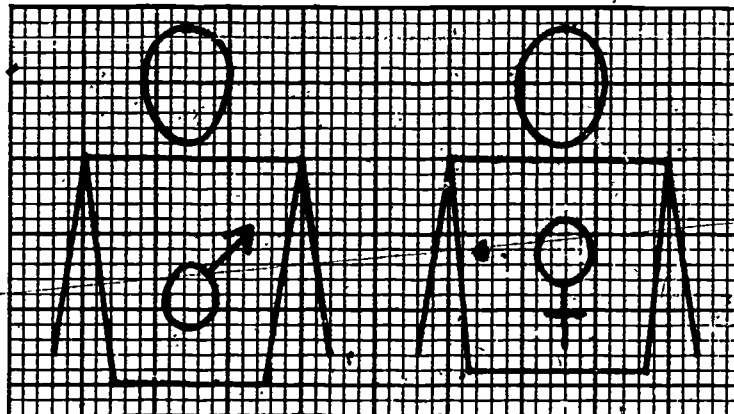
$$\frac{\text{Hip}}{\text{Shoulder}} = 1.30$$

A hip/shoulder width ratio of greater than 1.00 indicates that hip width is greater than shoulder width. The average hip/shoulder ratio of women reported by Bayer and Bayley (p. 23) did not exceed .80. The geometric figures shown below are drawn in proportion to actual data reported for the average 18-year-old man and woman (Bayer and Bayley, p. 23).

Actual Hip/Shoulder Proportions

Ratio:

$$\frac{\text{Hip}}{\text{Shoulder}} = .718$$



Ratio:

$$\frac{\text{Hip}}{\text{Shoulder}} = .798$$

The average 18-year-old woman has wider hips in relation to shoulders than does the average 18-year-old man. This does not mean the woman's hips are wider than her shoulders. Girls and women also have a shorter trunk length, which tends to visually increase the hip/shoulder ratio.

The table on page 43 shows hip/shoulder ratios of Olympic athletes in various sports. It is interesting to note that among the women, gymnasts and sprinters have the lowest hip/shoulder ratio; for men a similar pattern occurs.

References

Adrian, Marlene. "Sex Differences in Biomechanics." In Dorothy Harris, Ed., Women in Sport: A National Research Conference. University Park: Pennsylvania State University Press, 1976.

Bayer, Leona M., and Nancy Bayley. Growth Diagnosis. Chicago: The University of Chicago Press, 1959.

Drinkwater, Barbara. "Maximal Oxygen Uptake of Females." In Dorothy Harris, Ed., Women in Sport: A National Research Conference. University Park: Pennsylvania State University Press, 1972.

Hebbelinck, M., and W. D. Ross. "Kinanthropometry and Biomechanics." In R. C. Nelson and C. A. Morehouse, Eds., Biomechanics IV. Baltimore: University Park Press, 1974.

Hudson, Jackie. "Physical Parameters Used for Female Exclusion from L. Enforcement and Athletics." In Carole Oglesby, Ed., Women and Sports. Philadelphia: Lea & Febiger, 1978.

Klafs, Carl E., and M. Joan Lyon. The Female Athlete, 2nd ed. St. Louis: The C. V. Mosby Co., 1978.

MODULE 4

TITLE IX

OBJECTIVES

Upon completion of this module, participants will be able to:

1. Recognize provisions of Title IX that bear upon the teaching of secondary physical education.
2. Identify educational practices inconsistent with Title IX provisions.
3. Select alternatives for meeting Title IX requirements for situations identified as being noncompliant.
4. Initiate enforcement procedures required when violations of Title IX are indicated.

MATERIALS NEEDED

Film (can be obtained from the source listed), 16mm projector, copies (optional--see below) of the "Checklist for Evaluating Title IX Compliance Progress" (pages 49-50 of this handbook), copies of the article by Blau-farb (pages 51-54 of this handbook), Module 4.

ACTIVITIES (Select, omit, or rearrange to meet local needs.)

A. Film: "An Equal Chance Through Title IX"

1. Show the film "An Equal Chance Through Title IX," 22 min., 16mm, color. (Available from the American Alliance for Health, Physical Education, and Recreation, 1201 16th Street, N.W., Washington, D.C. 20036; \$275.00 purchase, \$18.00 rental.) The film explains the intent of Title IX and helps personnel in schools and communities to understand and implement this equal opportunity law. It shows boys and girls in a wide variety of activities--kindergarten through high school.
2. Discuss with participants the ideas gained from the film that might be used in the participants' own situations.

B. Module 4, pages 1-2

Ask participants to complete pages 1-2 of the module.

C. Module 4, pages 3-18

Ask participants to form small groups of two or three persons each to complete the exercises on pages 3-18 of the module. Tell participants that they may choose to do only one of the two exercises

provided for each area (comparable facilities, access to course offerings, ability grouping, grouping for body-contact activities, and evaluation).

D. Module 4, pages 19-30

Ask participants to complete the module by reading pages 19-30

E. Option: "Checklist for Evaluating Title IX Compliance Progress"

Participants may want to use this checklist, found on pages 49-50 of this handbook, to examine their own schools. If so, consider providing a follow-up discussion at the next session to review their findings.

F. Reading: "As I See Coed Physical Education" by Marjorie Blaufarb

The reading is on pages 51-54 of this handbook and may be used to supplement the discussion. The reading provides information relevant to both Modules 4 and 5.

CHECKLIST FOR EVALUATING TITLE IX COMPLIANCE PROGRESS*

The following is a checklist which education institutions/agencies may use to assess Title IX compliance progress in physical education programs.

	Has this been reviewed?	Is the institution/agency in compliance?
1. Are physical education requirements the same for males and females?	_____	_____
2. Have all students been informed of their right to nondiscrimination in physical education programs?	_____	_____
3. Do course descriptions state the criteria for measurement of skills where these are employed as a condition of course admission?	_____	_____
4. Have counselors and staff who assist with course enrollment been provided clear guidelines for nondiscrimination in course enrollment/assignment?	_____	_____
5. Do classes provide for a range of activities which meet the interests, skills, and abilities of male and female students?	_____	_____
6. Have the criteria used for measurement of progress within a physical education course been delineated by the physical education staff?	_____	_____
7. Have guidelines for the measurement of progress been provided to all members of the physical education staff?	_____	_____

*Adapted from the Resource Center on Sex Roles in Education. Title IX and Physical Education: A Compliance Overview. Washington, D.C.: U.S. Office of Education, 1976, pp. A1-A3.

Has this
been
reviewed?

Is the
institution/agency
in compliance?

8. Are criteria used for measurement of progress in physical education classes made available to students?

9. Has the application of evaluation criteria been reviewed to ensure that [the criteria] do not result in an adverse effect on students of one sex?

10. Are physical education facilities and equipment equally available to males and females according to the same criteria?

11. Are staff assignments made on the basis of qualifications and not on the basis of sex?

12. Are schedules of compensation free from differentiation on the basis of sex?

13. Are all extra-duty assignments equally available to members of both sexes?

14. Is compensation for extra duty comparable for male and female staff?

AS I SEE COED PHYSICAL EDUCATION*

Marjorie Blaufarb

During the 1976-77 school year, in my capacity as editor of a newspaper for teachers and others in the fields of health, physical education, and recreation, I visited schools at all levels in systems across the country. It was an enjoyable experience. I was impressed by the enthusiasm of the physical education teachers, by their desire to pick my brain just as much as I wished to pick theirs, and by the imaginative ways in which they enlarged their curriculum offerings. This article describes some of the things I saw; its content is limited in two ways.

First, for many children, physical education in any formal sense does not begin until middle school or junior high school, because many school systems do not have elementary physical education specialists. For this reason, I will discuss junior high and high school programs only.

Second, one of the requirements under the curriculum provisions of Title IX of the Education Amendments of 1972 is that all course offerings, including physical education ones, not be segregated according to sex. Not all schools in the United States have yet brought their physical education programs into compliance, but many of them have, and many more are well on the way. This article will deal with sex-integrated physical education programs only.

Buckeye Junior High School is in a working-class area of Columbus, Ohio. It has no extraordinary facilities, but its teachers offer the very best program they can. There are two physical education teachers, Dan Smith and Sandy Dunaway.

The day I was there, in late May of 1977, Smith and Dunaway took a class of eighth and ninth graders to the local elementary school to demonstrate to sixth graders there something about the physical education curriculum to which they would be exposed the next year. The eighth and ninth grade students put on a show of tumbling, South Asian bamboo dance, and other folk and national dance. Then the sixth graders heard about the dress code, about what activities they might participate in, and about what the Buckeye physical education faculty would expect of them.

Later that day, Dunaway taught tennis skills to about 40 boys and girls, and Smith had a golf class. Both classes were held outdoors. In each group, students had the appropriate racquet or club and ball. Dunaway gave continual individual tennis instruction, observing and correcting errors in serving, follow through, and returning the ball. Smith made keen observations in the golf class.

*Reprinted by permission from Marjorie Blaufarb, Today's Education, National Education Association, Washington, D.C., April-May, 1978.

Two physical education classes a week are required. Students who qualify by getting all A's or only one B in the first semester may elect to take advanced classes three times weekly in the second semester.

Students at Buckeye are exposed to soccer, physical fitness, field hockey, folk dance, basketball, volleyball, gymnastics, track and field, group games, tennis, and golf. Last year the boys were offered wrestling, and this year self-defense is being offered coeducationally. Dunaway and Smith do a lot of team teaching.

This curriculum is fairly typical of many junior high schools. Buckeye is worthy of discussion because of the determination of the two teachers to continue to improve the curriculum and the positive fashion in which they went about integrating the sexes in their classes although at first they had both been a little afraid to try it.

In Ridgewood, New Jersey, a community much smaller than Columbus, there are just two junior high schools. Both changed to coeducational programs about four years ago (before the Title IX regulations), because they believed that these programs would provide for greater flexibility in scheduling facilities and staff and "that it is only natural that the sexes be treated equally."

One school has four physical education teachers, the other has three, for student bodies of 900 and 800 respectively. The faculty members believe they have designed a junior high program that is flexible enough to be integrated into the entire school program. It leaves room for teacher and student to be creative and is easily adjustable.

The range of experiences available to these students during their junior high school years includes team sports such as volleyball, football, track and field, field hockey, flag football, soccer, basketball, and speedball. There are classes in bicycle skills and safety; racquet skills; body mechanics and movement principles; floor exercises and tumbling; jazz dance; self-defense; social and folk dance; advanced gymnastics; and outdoor activities including backpacking, orienteering, and rock climbing.

In the spring semester of 1977, when I visited, golf skills, gymnastics, track and field, and outdoor pursuits were being taught. One group studying rock climbing was learning the proper use of the ropes. When they understood this thoroughly, they would do some rappelling on a course mounted on the outside walls of the gymnasium.

At the high school level, physical education curriculums vary from the fairly rigid, which focus on team sports and a few of the more common individual sports, to programs that include as many as 50 or 60 activities. Students may or may not be required to take specific activities.

A basic core of activities is included in curriculums from Alaska to Florida and from Maine to California. Beyond that basic core, however, local interests are influential. Outdoor pursuits--backpacking, camping,

shooting and hunting, and fishing skills--are a popular part of the curriculum where these activities are popular in the community,

At John Handley High School in Winchester, Virginia, health and physical education is a required subject for students in grades 9 through 12. There are nine teachers for about 1,050 students. Classes are 50 minutes in length. The physical education curriculum offers 53 elective minicourses. All physical education classes have been sex-integrated since before the Title IX regulations were issued. In grades 9 and 10, students alternate weekly between health and physical education minicourses.

Students' needs and interests and the availability of staff and facilities determine what activities are provided. Where necessary, the physical education department uses community resources. For example, the school uses the community swimming pool, the city recreation department's golf-driving range and tennis courts, and the facilities of a commercial bowling alley.

A weekend camping trip climaxes the outdoor education course; a trip to the rifle range to fire live ammunition climaxes the riflery course; in winter, after pre-ski conditioning, students can take a trip to a ski run. Some teachers in the physical education department have school bus driver's permits, so it's easy to get students to off-campus activities.

According to Nikki Isherwood, department coordinator, instructors can choose, as much as possible, the courses they enjoy teaching and feel most competent to handle. Also, the teachers do about 40 percent of the instruction in teams. "Team planning is used extensively to provide the best instruction possible at all levels," says Isherwood. Not that there is little individualized planning. The team effort is used primarily to complement, coordinate, and correlate all sides of the learning process. All types of group instruction are used. Even within a large team-taught class, small group work is used extensively to make individualized instruction easier.

I visited John Handley one morning in May. The first class I saw was a large, team-taught archery class on the field. In the gymnasium, I watched a class taking instruction in golf skills. Next period I took a bus ride with the swimming instructor and his class to the community pool for a life-saving class. By that time, the class on the field was busy with track and field activities. Because of the team-teaching approach, some were practicing pole vaulting; others were learning relay racing and passing a baton; yet others were putting the shot; and another group was throwing the discus.

Students were receiving individual attention and were learning, and the atmosphere was full of good humor on the part of students and teachers.

At Handley, the adaptive and special education students were integrated for the first time in the 1976-77 school year. With minor adaptations they have the same activities as other students.

The grading system is uniform, the same for all grades and both sexes. Students are involved in evaluation of their own progress. The final period of each school day is devoted to intramurals.

Dance is an important part of physical education at Handley. In many schools, boys are reluctant to become involved in modern dance, although most of them enjoy folk, square, and national dance and of course social dancing. However, when a physical education department cooperates with a music department to produce a musical, as at Handley, boys lose their shyness and enjoy being members of the chorus line.

Not every school or teacher is able to work with this kind of curriculum, but many are. Places near the ocean, lakes, or rivers may teach water sports such as scuba diving and canoeing; some even offer white-water canoe trips. The choice of team games offered varies also. Some areas of the country never bother with lacrosse or with team handball; elsewhere, the same sport may be a big thing.

Perhaps more than in the past, physical education programs vary from school to school, from region to region. One way in which they will soon be alike, however, is integration of the sexes. The obstacles to this can and must be overcome if girls and boys are to grow into healthy, active adults.

MODULE 5

CURRICULUM DEVELOPMENT

OBJECTIVES

Upon completion of this module, participants will be able to:

1. Identify the four major components of a curriculum.
2. Identify at least four factors which must be considered in the development of a curriculum.
3. Recognize examples of the factors which must be considered in the development of a curriculum.
4. Apply guidelines for eliminating sex-role stereotyping and sex discrimination in the construction of a physical education curriculum.

MATERIALS NEEDED

Curriculum guide(s) for specific schools or systems, copies of the article by Blaufarb, if the article was not used with Module 4 (pages 51-54 of this handbook), Module 5.

INTRODUCTION

The activities included in this section of the handbook are designed so that following acquisition of basic information about development of equitable curriculums, participants will be able to work with their own curriculums or programs. Curriculum development is an ongoing process which requires sufficient time for planning, executing, and evaluating.

In order for participants to revise or create curriculums utilizing the information provided in Module 5, they may need time beyond that allotted for this workshop (course, seminar). Thus, these activities might best be viewed as a starting point in developing unbiased curriculums. As participants develop unbiased physical education curriculums, they should be aware of the importance of Title IX (Module 4) and evaluation (Module 7). They should also realize that Exercise 7 in Module 5 was designed to provide examples of components of an unbiased curriculum and does not present a total curriculum.

Two resources seem particularly useful for people revising or creating unbiased curriculums: (a) Equity in Physical Education, by Annie Clement and Betty Hartman (available from the WEEA Publishing Center), and (b) Title IX: Sex-Integrated Programs That Work, edited by Marjorie Blaufarb and John Gano (available from AAHPER). The Blaufarb article, "As I

See Coed Physical Education, " (pages 51-54 of this handbook) may also prove to be informative, in that unbiased curriculums and classes are described in this supplementary reading.

ACTIVITIES (Select, omit, or rearrange to meet local needs.)

A. Module 5, pages 1-6

Ask participants to complete pages 1-6 of the module.

B. Module 5, pages 7-8

Establish for participants the definition and components of a curriculum based on page 7 of the module. Have participants use their own school (or system) curriculum plan or curriculum guide to identify its components. Then ask participants to complete Exercise 2 on page 8.

C. Module 5, pages 9-12

Brainstorm with participants the key factors in developing a curriculum as presented on page 9 of the module. Have participants read pages 9-11, reviewing the examples of factors therein. Then ask participants to complete Exercise 3 on page 12; for this exercise, ask participants to form small groups.

D. Discussion: What Can We Do to Eliminate Sexism in Physical Education?

Lead a discussion of this topic with the participants. The participants' responses should include some of the ideas listed in the guidelines on pages 13-14 of the module.

E. Module 5, pages 13-16

Ask participants to read pages 13-16 of the module. Optional: Have them complete Exercise 4 on pages 15-16.

F. Module 5, pages 17-27

Ask participants to complete the remaining pages of the module to obtain background information before they begin to work on their own curriculum guide.

G. Development of an Unbiased Curriculum for the Participants' Own School or System

1. Ask participants to create an unbiased curriculum for their own school or system. Tell them they can analyze and revise the existing curriculum(s) or start anew, as follows:

- a. Develop a philosophical statement.
 - b. State the objectives.
 - c. Develop learning activities (learning experiences or courses) for meeting the goals and objectives.
 - d. Plan evaluation techniques.
2. Remind the participants that curriculum development is an on-going process and that students, parents, and administrators--as well as teachers--should be involved at some point. Stress the importance of planning for a particular school or system, including meeting students' needs, utilizing teachers' capabilities, utilizing school and community facilities and equipment, and being equitable.

H. Reading: "As I See Coed Physical Education" by Marjorie Blaufarb

The reading is on pages 51-54 of this handbook. If you have not used it as a supplementary reading for Module 4, you may want to have participants read it at this time.

MODULE 6

TEACHER BEHAVIOR

OBJECTIVES

Upon completion of this module, participants will be able to:

1. Identify teacher behaviors which perpetuate sex-role stereotyping through:
 - a. The example the teacher models before the students.
 - b. The language the teacher uses which relies upon sexist referents.
 - c. The classroom instruction and management procedures that differentiate between boys and girls.
2. Select and use language which is not sex biased.

MATERIALS NEEDED

Butcher paper, colored marking pens, posterboard, pictures of students, film (can be obtained from the source listed), 16mm projector, article by Neikirk (on pages 65-66 of this handbook), Module 6.

ACTIVITIES (Select, omit, or rearrange to meet local needs.)

A. Graffiti Exercise or Poster Exercise

Have participants select one of the following two exercises:

1. Graffiti exercise

- a. Tape butcher paper to the walls around the room. On each sheet of paper write an incomplete sentence (examples follow) related to teacher behavior pertaining to sexism. As participants come in, encourage them to write whatever comes to mind as they read these thoughts, and thus complete the sentences. The sentences that follow are suggestions; select some of them and/or write others. Supply colored marking pens for participants to write with.

- (1) A girl who plays football is . . .
- (2) A boy who likes to dance is . . .
- (3) An aggressive girl is . . .
- (4) My best girl student is . . .
- (5) My favorite skier is . . .
- (6) My favorite dancer is . . .

- (7) The one student whom I would encourage to major in physical education in college is . . .
- (8) A boy who says he is tired and wants to sit and watch . . .
- (9) A girl who says she is ill and wants to sit and watch . . .
- (10) The class leader is . . .
- (11) A boy who always dresses neatly . . .
- (12) A girl who does a "Casey at the Bat" . . .
- (13) A girl who likes to wrestle . . .
- (14) If a boy swears in class, I . . .
- (15) If a girl swears in class, I . . .
- (16) My favorite method of disciplining boys is to . . .
- (17) My favorite method of disciplining girls is to . . .
- (18) When my class is doing a dance unit, I . . .
- (19) A student behavior that really upsets me as a teacher is . . .
- (20) When I choose squad leaders, I . . .
- (21) When I put on skipping music for my class, I . . .
- (22) A girl who beats a boy in competition . . .
- (23) A boy who hits a girl is . . .
- (24) A girl who hits a boy is . . .
- (25) I always have more discipline problems . . .
- (26) In grading, I tend to grade more strictly with . . .
- (27) A boy who is not interested in sports and athletics . . .

2. Poster exercise

This activity could lead to a discussion of teachers' expectations of students based on appearance and on sex, and of how teachers might treat these students differently because of these expectations.

- a. Cut out pictures of students and paste the pictures to poster-board or tack them to a bulletin board. Display the pictures so the participants see them as they enter the room.
- b. Ask the participants to describe and speculate about each student, as follows: Which student is the most likely to be a troublemaker? a good student? highly skilled? a leader? least skilled? or . . .?

B. Module 6, page 1

Ask participants to read page 1 of the module.

C. Module 6, pages 1-2

Ask participants to complete Exercise 1. Discuss with them their discoveries about their behavior as teachers.

D. Module 6, pages 3-8

Ask participants to read pages 3-8 of the module.

E. Film: "Hey! What About Us? Sex-Role Stereotyping in Physical Activity"

1. Show the film "Hey! What About Us? Sex-Role Stereotyping in Physical Activity," 15 min., 16mm, color. (Available from the University of California Extension Media Service, 2223 Fulton Street, Berkeley, CA 94720; \$200.00 purchase, \$17.00 rental.) The film presents stereotyping and sex discrimination in physical education activities. It includes student and teacher behavior and assumptions which are sex biased and those which are not.
2. Discuss with participants: What evidences of sex-role stereotyping were shown in the film?

Possible responses:

- a. Boys in boxing--not an approved curricular activity in many schools.
- b. Male teacher putting down the goal of scientist.
- c. Male classroom teacher's response to girls' squabbling different from his response to boys' squabbling.
- d. Boys saying a girl could not make a winning hit in baseball except by accident.
- e. Differing teacher responses to the fall of a boy and the fall of a girl.
- f. A male teacher calling a boy a sissy.
- g. A boy not being allowed by the administration to take a dance class.

3. Discuss with participants: What examples of unbiased behavior did this film show?

Possible responses:

- a. A mixed-sex karate class, with both boys and girls being successful.
- b. A male teaching dance. The movements were flowing, rather than of the percussive quality often thought appropriate for boys and men.
- c. An accurate throw and a successful catch of a football by girls.
- d. A male classroom teacher.
- e. A classroom teacher emphasizing the importance of keeping a promise.

F. Word-Association Exercise

Conduct this exercise as follows:

1. Give each participant 10 minutes to make a list of words describing the female student (or the male student).

2. Ask participants to form small groups of three to five persons each. The groupings can be all female, all male, or all mixed. Have group members decide whether to discuss the male or the female student.
3. Ask group members to read their lists to one another and to say which characteristics they like.
4. Have each group, as a team, select ten items that they feel are the most important from all the lists. It is important to have participants agree on the meaning of each characteristic.
5. Have each group rank the item from 1 to 10 in importance, with 1 being the most important.
6. Ask the groups to decide who the person they have created is-- the ideal woman (or man)? the typical woman (or man)? Have participants decide whether the characteristics are positive or negative.

G. Module 6, pages 9-17

Reading: "A Case for Nonsexist Language" by Mary M. Neikirk

1. Ask participants to complete pages 9-17 of the module. Discuss with them Exercise 2 on page 16.
2. During the field testing of this module, users frequently indicated that changing the language is trivial and "too picky." To counteract such statements, have participants read "A Case for Nonsexist Language" on pages 65-66 of this handbook.

H. Option: Graffiti Exercise Revisited

At this point--following completion of the section on language in the module and the activities done thus far--you might want to have participants use the statements from the graffiti exercise (on page 59 of this handbook), this time completing or rewriting the statements using nonsexist language.

I. Module 6, pages 19-23

Ask participants to complete the module by reading pages 19-23.

J. Discussion: The Improvement of Coeducational Instruction and Classroom Management

1. Have participants form small groups.
2. Ask each person to make a list of the major obstacles to improvement in the conduct of coeducational instruction and classroom management.
3. Have participants then contribute to a master list of the most important items.

4. Ask participants to select five of the items and list them in descending order of importance, as follows:
 - a. Have each person choose five items from the master list.
 - b. Have each person select the single most important item, followed by the least important item, of the five.
 - c. Have each participant select the second most important item, followed by the second least important item, of the remaining three.
 - d. Participants can then place the five items in order by assigning to each item a numerical value of from 5 to 1. The item receiving the highest total points--adding the points from each member of the group--might be said to be the most crucial.
5. Discuss with participants some possible solutions to each of the five items.

K. Option: Discussion of Stereotyping in Leadership Roles

Ask participants to make a list of leadership roles and responsibilities that an instructor ordinarily turns over to students--for example, choosing squad leaders, setting up equipment, taking attendance, or running the audiovisual equipment. Then ask each participant to write in the names of the students who are usually assigned to those roles. Discuss with participants whether or not there are sex-role stereotyping patterns that emerge, based on the lists of students chosen for various tasks.

A CASE FOR NONSEXIST LANGUAGE

Mary M. Neikirk

People often comment that changing the language, particularly to eliminate sex bias, is "too picky" or trivial. Sexism in language is currently the topic of many publications, the number of which might allay concern—that this topic is trivial. One book in particular, Sexism and Language, by Alleen Pace Nilsen, Haig Bosmajian, H. Lee Gershuny, and Julia P. Starley (1977), is an up-to-date, thorough compilation of research findings and linguistic analyses pertinent to sexist language. The book, which includes "Guidelines for Nonsexist Use of Language in NCTE Publications," is available from the National Council of Teachers of English, 1111 Kenyon Road, Urbana, Illinois 61801 (\$5.95, paper):

Two research studies about the effects of language on students are of special interest. To study the effect of the word man, Schneider and Hacker (1973) asked college students to collect photographs, cartoons, and other illustrations appropriate for a proposed introductory text in sociology. Half of the students were given proposed chapter titles which contained the word man; the other half were given alternate titles which used the word people to express the same concepts. The students with the "man titles" submitted a significantly larger number of all-male or mostly male pictures than the students with the "people titles" submitted.

Harrison (1975) examined the responses of junior high science students to questions pertaining to people such as Cro-Magnons and Neanderthals. In describing these early humans, Harrison used three sets of terms: (a) man, men, mankind, and he; (b) humans, people, and they; and (c) men and women and they. Students were asked to draw pictures, demonstrating early people in various aspects of their lives. For example, "Draw three examples of early man and the tools you think he used in daily life"; "draw two early men and women who had just learned the use of fire, cooking an evening meal." Harrison found that both male and female students were more likely to draw only male figures than only female figures, regardless of what set of terms was used. When the terms man, men, mankind, and he were used, students tended to draw only males, but when the other sets of terms were used, students drew females as well.

These studies, as well as material in Sexism and Language, give support to the idea that use of supposedly generic (that is, referring to all people) terms such as man and mankind tends to exclude girls and women. The studies also show how powerful our language is in shaping the images we have. Hence, changing the language as a means of reducing sex bias may not be such an unimportant task after all.

References

Harrison, Linda. "Cro-Magnon Woman--In Eclipse." The Science Teacher, 42, No. 4 (1975), 8-11.

Nilsen, Alleen Pace et al. Sexism and Language. Urbana, Illinois: National Council of Teachers of English, 1977.

Schneider, Joseph W., and Sally L. Hacker. "Sex Role Imagery and the Use of the Generic 'Man' in Introductory Tests: A Case in the Sociology of Sociology." The American Sociologist, 8, No. 1 (1973), 12-18.

MODULE 7

STUDENT PERFORMANCE EVALUATION

OBJECTIVES

Upon completion of this module, participants will be able to:

1. Recognize that the teachers' influence during testing and measurement of physical performance is critical to the reduction of sex-role stereotyping in physical education.
2. Identify techniques that can be used to group students for testing and instruction.
3. Recognize the need to use separate standards for grading when either sex is being discriminated against by use of a single standard.
4. Identify techniques that can be used to create separate standards for grading.

MATERIALS NEEDED

Copies of the article by Stamm (pages 69-73 of this handbook), Module 7.

ACTIVITIES (Select, omit, or rearrange to meet local needs.)

A. Module 7, pages 1-8

Ask participants to complete pages 1-8 of the module. Discuss with them Exercises 1-3.

B. Module 7, pages 9-12

Ask participants to complete pages 9-12 of the module. Discuss with them Exercise 4.

C. Reading: "Evaluation of Coeducational Physical Activity Classes" by Carol Lee Stamm

The reading is on pages 69-73 of this handbook. Suggested questions for discussion are as follows:

1. What are the strengths and weaknesses of each of the three approaches Stamm describes: separate performance standards, grading on improvement, and mastery learning?
2. What are some of the ways these approaches could be (or have been) used by you?

D. Module 7, pages 13-31

Ask participants to complete the modules by reading pages 13-31 and completing Exercise 5. Discuss with them Exercise 5.

E. Discussion: Methods of Grading Used by Participants

Discuss with the participants the various methods they use for grading. Help them to identify those techniques which are free of sex bias.

EVALUATION OF COEDUCATIONAL PHYSICAL ACTIVITY CLASSES*

Carol Lee Stamm

The implementation of Title IX, which requires that educational programs receiving federal financial assistance be accessible to both sexes, has resulted in the establishment of coeducational physical education classes for most activities. The regulations for the implementation of Title IX require the use of standards for measuring skill or progress in these classes which do not impact adversely on members of one sex.¹ The purpose of this paper is to discuss three approaches which could be used to establish evaluation standards for coeducational classes: the use of separate standards for evaluating males and females, the use of improvement scores for evaluation, and the use of mastery learning. An attempt will be made to identify some of the strengths and limitations of each approach.

Since for today's student, the achievement rate for males in beginning activities is likely to surpass the female achievement rate in the same activity, the utilization of separate standards for males and females has been a common approach to grading in coeducational classes. An example of achievement scores for males and females is presented in Table 1, which shows the means, standard deviations, and highest and lowest bowling averages for men and women enrolled in several Bowling I classes at the University of Iowa. An inspection of the data indicates that the mean bowling average for males is 21 pins higher than the mean bowling average for females. Sex differences in performance scores of this magnitude make it difficult to establish standards for evaluation which do not discriminate against either sex.

Table 1.

Descriptive Statistics for Bowling I

	Women	Men	Total
Mean	106.7	127.2	113
Standard Deviation	17.2	16.9	17
Highest Average	162	173	173
Lowest Average	31	60	31
Number of Students	245	114	359

*Reprinted by permission from Carol Lee Stamm, *JOPER*, American Alliance for Health, Physical Education, and Recreation, Washington, D.C., January, 1979. This material was taken in part from a paper, "Title IX: Implications for Measurement in Physical Education," which the author presented at the Colorado Measurement Symposium, Boulder, Colorado, October 13, 1977.

The results of assigning grades using the standard deviation method for Bowling I with a single standard and separate standards for men and women are presented in Table 2. These data indicate that the use of a single standard for bowling will result in more failures for women than men (29 and 3, respectively) and more A's for men than women (21 and 4, respectively). It should be noted that this data set consists of scores for 245 women and 114 men; therefore, if the distributions were the same, we would expect approximately twice as many females as males at each grade. Since the results indicate that the ratio of failures for females is much higher than this (approximately 10 females to 1 male), it can be argued that the use of a single standard impacts adversely on females and separate standards should be utilized. The results of assigning grades utilizing separate standards are also presented in Table 2. This method results in equal percentages of the total male and female populations receiving each letter grade.

Table 2.

Grade Distributions for Bowling I
Using a Single Standard and
Separate Standards for Men and Women

Grade	Single Standard	
	Frequency Women	Frequency Men
A	4	21
B	29	58
C	111	25
D	72	7
F	29	3

Grade	Separate Standard	
	Frequency Women	Frequency Men
A	8	4
B	75	25
C	104	59
D	41	16
F	17	10

Using Separate Performance Standards

The use of separate performance standards for males and females has been the most common evaluation procedure, since sex differences in performing motor tasks has been well documented.² However, there are some indications that much of the research on sex differences tends to measure what is or has been rather than what could or should be.³ If some of the sex differences in performance are psychosocial differences, the practice of using separate standards could result in the continuation of sex-role stereotyping by assuring females that they are not capable of performing

as well as males in most activities. This method might also discriminate against the less skillful male, since a failing score on the male's scale might be an average score on the female's scale.

When girls are given the same movement experiences and expectations as boys, we may be able to separate physiological sex differences from psychosocial sex differences. Until that time, efforts should be made to identify those activities which require separate standards to avoid discrimination. Statistical tests to determine whether sex differences in performance scores are significant should be straightforward for tests in many activities. The instructor will still need to decide whether the difference is meaningful or important. If we conduct some of these studies we may discover that the need for separate standards for instructional groups has been overestimated.

Grading on Improvement

The second approach to evaluating coeducational physical education classes is grading on improvement. The basis for grading on improvement is the intuitively appealing notion that an objective standard of skill performance may be the student's previous performance. The students are given a pretest at the beginning of a unit and a posttest at the end of the unit. Each student's improvement score is computed by subtracting the pretest score from the posttest score.

The major difficulty associated with this technique is that potential improvement is dependent upon the level of skill of the performer.⁴ The beginning performer can usually demonstrate larger improvement scores than the advanced performer. For example, if two students' pretest scores on the 100-yard dash were 20 seconds and 9 seconds, respectively, the first student would be likely to have a larger improvement score at the end of the unit. When improvement scores are used for evaluation without considering this phenomenon, the skilled student is penalized.

Several other problems are inherent when attempts are made to grade on improvement. The first of these is that improvement scores are unreliable.⁵ Another problem is assuring student motivation on the pretest to prevent test-wise students from deliberately staging a poor performance. A final difficulty with improvement scores is that adequate time must be allowed for improvement to take place, and physical education units may not be long enough for all students to demonstrate improvement.

Hale and Hale⁶ have suggested a statistical technique to alleviate the problem of equal weighting for a unit of improvement for high and low levels of performance. A unit of improvement at higher performance levels is weighted more heavily than the same unit of improvement at a lower performance level. This procedure requires the conversion of raw scores to T-scores. The T-scores are used with the Hale and Hale conversion table to determine each student's progression score.⁷ Wells and Baumgartner⁸ demonstrated that a grading system based on achievement and improvement (determined by the Hale and Hale procedure) resulted in grades for most students that were different than the grade they would have received using a grading system based only on achievement.

While it can be argued that the Hale and Hale procedure makes grading on improvement more valid, the use of the procedure does not solve the problems created by the unreliability of gain scores. These problems and the problem of student motivation on the pretest must be solved before grading on improvement is really a viable option. It should also be noted that the mathematical procedure used to generate the Hale and Hale conversion table is not infallible.⁹

Using the Mastery Learning Approach.

A third approach to evaluating coeducational physical education classes is the use of mastery learning. When a mastery learning approach is utilized, criterion-referenced measures are used for evaluation. That is, the students work to achieve predetermined standards and there is no comparison with other students in the class for grading purposes. The students are informed of the standards of performance at the beginning of the unit. The mastery approach allows the student to repeat tests and other assignments until the desired mastery level is achieved. Obviously, the time allocated for instruction imposes some constraints on the number of students who will achieve a given mastery level.

The use of the mastery approach has tremendous appeal, because potentially, it would allow the development and application of performance standards without regard to sex. Some steps have already been taken in this direction in activities which require a minimal standard of proficiency for all students regardless of sex (e.g., lifesaving, WSI, and scuba diving). Attempts should be made to identify minimal standards in additional activities.

While the mastery approach seems to be the most promising method of evaluation for coeducational physical education activity classes, there are many unsolved measurement problems in the criterion-referenced area. These problems include determining reliability, validity, and the appropriate cut-off score (mastery score) for criterion-referenced measures. Physical educators must address these problems in the near future.

In conclusion, it seems important to emphasize that our primary purpose in physical education classes is to create an atmosphere that encourages all students to acquire motor skills. Therefore, we must ensure that curricular and evaluation changes that are implemented to comply with Title IX are educationally sound. An evaluation model which assumes that setting individual standards implies an increased emphasis on subjective evaluation is questionable, since the use of highly objective procedures should be a part of any grading or evaluation system. The implementation of Title IX has made us aware of some evaluation problems in physical education activity classes. The problems can be solved by physical educators who are willing to explore different methods of evaluation and change some of their previous expectations.

NOTES

¹Federal Register, Vol. 40, No. 108, Wednesday, June 4, 1977, p. 25132.

²See: AAHPER Youth Fitness Test Manual. Washington, D.C.: American Alliance of Health, Physical Education, and Recreation, 1976; and Espen-shade, A. S., and Eckert, H. M. Motor development. Columbus, Ohio: Charles E. Merrill Books, Inc., 1967.

³See: Cheffers, J. Teacher behavior and attitudes: Is change needed? Title IX: Moving toward implementation. National Association for Physical Education of College Women and National College Physical Education Association for Men, 1975; and Stauffer, R. W. Comparison of United States Military Academy men and women on selected physical performance measures. . . . Project Summertime, Office of Physical Education, United States Military Academy, West Point, N.Y., October 1976. . . .

⁴Safrit, M. J. Evaluation in physical education: Assessing motor performance. Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1973.

⁵See: Hale, P. V., and Hale, R. M. Comparison of student improvement by exponential modification of test-retest scores. Research Quarterly, 1972, 43, 113-120.

⁶Ibid.

⁷Safrit, M. J. Title IX: Instructional implications. Paper presented at the Mid-America College and University Physical Education Conference: The General College Program, Chicago, January 20, 1978.

⁸Wells, W. T., and Baumgartner, T. A. An investigation into the practicality of using the Hale exponential method of evaluating improvement. Research Quarterly, 1974, 45, 460-464.

⁹Safrit, 1978, op. cit.

SELECTED SUPPLEMENTARY RESOURCES

In developing this section of the handbook, the authors reviewed many resource materials. The materials which follow were selected for inclusion in the handbook because they are particularly useful in conveying information pertinent to the modules and/or in providing general information about educational equity and women's concerns. Several sources were included because they provide models for workshops on nonsexist education. Note: Those resources cited in the body of this handbook are not listed in this section.

The resources are divided into three sections: (a) print materials--books, articles, resource lists, journals, and magazines; (b) non-print materials--16mm films, filmstrips, audio cassettes, and multimedia kits; and (c) resource centers--organizations, publishers, and projects which are concerned with nonsexist education and women's issues and many of which produce and disseminate materials on a regular basis. Each entry in the list is briefly annotated and suggestions for use are provided.

PRINT MATERIALS

SUGGESTED USE

Blaufarb, Marjorie. Complying with Title IX of the Education Amendments of 1972 in Physical Education and High School Sports Programs. Washington, D.C.: American Alliance for Health, Physical Education, and Recreation, 1976.

Modules 4, 7

Basic resource for implementing Title IX in physical education.

"Coeducational Recreational Activities." Journal of Physical Education and Recreation, 47, No. 5 (May, 1976), 16-27.

Module 5

Describes modified basketball, softball, and volleyball as used in intramurals; applicable to high school curriculum. Includes information about coed fencing, water joust, jogging meet, and flag football.

Costic, Rita M., ed. Women's Educational Equity: Annotated Selected References and Resources. San Francisco: Women's Educational Equity Communications Network (WEECN), 1978. \$2.00.

General
information

Provides an introductory overview of major resources on women and education. Includes annotations of books, reports, bibliographies, journals, newsletters, resource lists, and library collections.

- Emma Willard Task Force on Education. Sexism in Education, 3rd ed. Minneapolis: The Emma Willard Task Force on Education, 1973. Module 2
- Available from the Task Force, Box 14229 University Station, Minneapolis, MN 55414; \$4 for individuals, \$6 for institutions.
- Workbook of materials which includes a bibliography on a wide range of topics. Contains extensive lists and evaluations of books, periodicals, and audiovisual materials.
- Fallon, Dennis. "A Man Unchained." Journal of Physical Education and Recreation, 48 (May, 1977), 43-44. Modules 1, 2
- Traces an individual's development in a nonstereotyped direction for self-realization and male liberation in physical education.
- Farrell, Warren. The Liberated Man. New York: Random House, Inc., 1974. Modules 1, 2, 3
- Clarifies sexism, discrimination, and socialization as they affect men. Discusses males developing as total persons, realizing their potentials and personal goals.
- Feminists Northwest. Project Awareness, A Multi-State Leadership Project Addressing Sex Discrimination Issues in Education, Training Manual. Olympia, WA: Superintendent of Public Instruction, 1976. Workshop model
- Available from Office for Equal Education, Superintendent of Public Instruction, Old Capitol Building, Olympia, WA 98504.
- A training program for school personnel to ensure equal education for both girls and boys. Includes reprints, handouts, and activities to eliminate sex-role stereotyping and sex discrimination.
- Frazier, Nancy, and Myra Sadker. Sexism in School and Society. New York: Harper and Row, 1973. Modules 1, 2
- Contains thorough and readable reviews of scientific literature on sex-role development and socialization. Provides analyses of various aspects of sexism in schools.
- Froschl, Merle, and Jane Williamson. Feminist Resources for Schools and Colleges: A Guide to Curricular Materials. Old Westbury, NY: The Feminist Press, 1977. General information
- Annotated bibliography of print and non-print materials. Includes overviews of sex-role socialization, sports, the law, and models for change. Has section on readings and curriculum in secondary education and sources of further information.

Gough, Pauline. Sexism: New Issue in American Education. Bloomington, IN: Phi Delta Kappa, 1976.

Modules 1, 2, 6

Comprehensive and easily read presentation of background information about sexism in American schools. Provides practical information in sections entitled "Teachers Need Training for Change" and "A Direct Teaching Strategy."

Grady, Kathleen E., et al. The Male Sex Role: A Selected and Annotated Bibliography. Washington, D.C.: National Institute for Mental Health, 1978.

Modules 1, 2

Available from the National Clearinghouse for Mental Health, 5600 Fishers Lane, Rockville, MD 20857. Free.

Lists recent literature on the development and change in the sex role of the modern male.

Grimstad, Kirsten, and Susan Rennie, eds. The New Woman's Survival Sourcebook. New York: Alfred A. Knopf, 1975.

General information

A collection of information about resources for women all over the country. Includes women's centers, organizations, bookstores, bibliographies, books, publishers, films, and other sources for materials. Has sections on education, health, and athletics.

Grizzard, Victoria, and Joanne Dodge. Sexism: A Handbook for Teacher Intervention or Calling Off the Game. Santa Barbara, CA: Confluent Educational Development and Research Center (CEDARD), 1974.

Module 6,
Workshop
model

Concentrates on teacher behavior and practices that perpetuate stereotyping. Includes exercises for examining attitudes and expectations, curriculum ideas, and instructional strategies, along with a resource guide and workshop outlines.

Hughes, Marija Matich. The Sexual Barrier. Washington, D.C.: Hughes Press, 1977.

General information

Comprehensive bibliography on issues relating to women. Includes over 8,000 articles, pamphlets, and government documents published between 1960 and 1975.

Hulme, Marilyn A. Sourcebook for Sex Equality In-Service Training: An Annotated Listing of Materials and Media for Affirmative Action In-Service Training. New Brunswick, NJ: Training Institute for Sex Desegregation of the Public Schools, 1978.

General information

Includes print and non-print materials divided into four sections: General resources, Materials and Media, Affirmative Action and Counseling, and Human Relations. All materials are in the Institute's Resource Center and may be borrowed by educators.

Jacobs, Karen Folger. GirlSports. New York: Bantam Books, Inc., 1978.

Modules 1, 2

Stories of fifteen girls who successfully competed in sports traditionally played by men. Sports include wrestling, judo, baseball, water polo, rodeo, skateboarding, basketball, tennis, and running.

Kaplan, Janice. Women and Sports: Inspiration and Information for the New Female Athlete. New York: Viking Press, 1979.

Modules 2, 3

Includes chapters on the image, attitudes, physiology, achievements, and future of the female athlete.

Kneer, Marian. "Sex Integrated Physical Education." National Association of Secondary School Principals Bulletin, 62, No. 417 (April, 1978), 79-84.

Modules 4, 5

Offers some considerations which may ease the process of changing physical education programs in order to comply with Title IX. Includes information about instruction, course offerings, administration, and scheduling.

Kramer, Ellen, and Laurie Emrich. Sex Roles: Past, Present and Future: A Guide to Simulations, Games and Activities, 2nd ed. Washington, D.C.: The Population Institute, 1978.

Modules 1, 2

Describes games, activities, awareness exercises, and projects on women and men which explore realities and myths about the nature, history, and potential of the two sexes. Designed for various ages and for individuals, groups, couples, and classes; varying degrees of complexity.

Maccoby, Eleanor E., and Carol N. Jacklin. The Psychology of Sex Differences. Stanford, CA: Stanford University Press, 1974.

Module 2

Contains research and interpretations concerning sex differences and similarities in psychological functioning--a comprehensive synthesis of information available at the time of publication.

MacDonald, Linda, comp. An Educator's Guide to the Correction of Sex Bias in Education. Montevideo, MN: Educational Service Area (ESA), 1974.

Modules 1, 2, 4, 6

Available from ESA Media Center, 301 N. 1st Street, Montevideo, 56265.

Includes information on Title IX, sexist attitudes, and expectations in education, and elimination of sex bias. Has extensive lists of organizations, publishers, distributors, major bibliographies, and nonsexist instructional materials.

McLure, Gail Thomas, and John W. McLure. Women's Studies. Washington, D.C.: National Education Association, 1977.

Modules 5, 6

Discusses the need for change in the roles of women and men. Presents the traditional theory and practice of sex-role development, and suggests "A New Model" for development. Chapter 11, "Sports and Physical Education," describes changing programs.

National Project on Women in Education. Taking Sexism Out of Education. Washington, D.C.: U.S. Government Printing Office, 1978. Stock No. 017-080-01794-6.

Modules 1, 2, 4, 5

Series of articles originally published in American Education and based on reports of the findings and recommendations of a study carried out by the Institute for Educational Leadership, Department of Health, Education, and Welfare. Articles include "Title IX . . .," "Toward a Nonsexist School," "What to Do About Sex Bias in the Curriculum," and "Changing Male Roles."

Resource Center on Sex Roles in Education. Implementing Title IX in Physical Education and Athletics: An Application Booklet for Physical Activity Personnel. Washington, D.C.: Office of Education, 1978.

Module 5

Provides strategies for the implementation of Title IX. Includes guidelines for compliance.

Resource Center on Sex Roles in Education. A Resource List for Non-Sexist Education. Washington, D.C.: National Foundation for the Improvement of Education, 1976.

General information

Provides basic sources pertaining to the need for nonsexist education and the development of nonsexist instruction, guidance and counseling. Includes nonsexist books for children and early adolescents, as well as additional reference materials for those wishing to pursue particular subjects.

Resource Center on Sex Roles in Education. Steps Toward Sex Equity in Vocational Education: An Inservice Training Design. Washington, D.C.: U.S. Government Printing Office, 1978. Stock No. 017-080-01864-1.

Workshop model

Model and guide for leaders conducting a workshop or series of inservice training sessions. Suggestions and techniques may be applied directly to combat sex-role stereotyping in education programs.

- Resource Center on Sex Roles in Education. Title IX and Physical Education: A Compliance Overview. Washington, D.C.: U.S. Government Printing Office, 1976. Stock No. 017-080-01712-1; \$1.40. Modules 4, 5
- Snodgrass, Jon, ed. For Men Against Sexism. New York: Times Change Press, 1977. Modules 1, 2
- Available from Times Change Press, c/o Monthly Review, 62 W. 14th Street, New York, NY 10011. \$5.75 plus 50¢ postage.
- Explanation of the consequences of sexism from the male point of view.
- TABS: Aids for Ending Sexism in School. Modules 5, 6, 7
- Quarterly journal available from TABS, 744 Carroll Street, #1B, Brooklyn, NY 11215; yearly rates--\$8.50 individuals, \$17.00 institutions; single copy--\$2.50.
- Includes plans and suggestions for combating sexism in the classroom. Features posters, display items, resources, an ideas exchange, and awareness exercises.
- Training Institute for Sex Desegregation. Strategies for Equality: Guidance, Social Studies, Physical Education. New Brunswick, NJ: Rutgers, 1978. \$3.00. Modules 4, 5, 6
- Includes activities for intramural sports programs. Suggests plans for coed units in dance, gymnastics, wrestling, and weight training. Outlines a workshop on sex discrimination legislation.
- Travis, Carol, and John B. Wexo. "A Game of Confrontation: Woman and Man." Psychology Today (July, 1971), 44-48, 53-57. Modules 2, 6, 7
- Individual or group awareness game which raises sex-role consciousness. Gives insights into sex-role myths, stereotypes, status, and strategies for both roles.
- Twin, Stephanie L. Out of the Bleachers: Writings on Women and Sport. Old Westbury, NY: The Feminist Press, 1979. Modules 1 - 8
- Writings of men and women about women in sports. Contains information about physiology and social attitudes. Includes reflections by sportswomen. Examines the structure of women's sports--past, present, and future.

Verheyden-Hilliard, Mary E. Handbook for Workshops on Sex Equality in Education. Washington, D.C.: Sex Equality in Guidance Opportunities (SEGO) Project, 1976.

Workshop
model

Available from SEGO Project, American Personnel and Guidance Association, 1607 New Hampshire Avenue, N.W., Washington, D.C. 20009 or from the U.S. Government Printing Office (Stock No. 596-871).

Guide for the leader of workshops, inservice training, etc. Includes resources, activities, and organization steps for a workshop on sex equity in education. Presents information about the socialization of girls and boys, discrimination against girls and women, curriculum, athletics in an educational setting, and statistics on women's lives.

Women's Educational Equity Communications Network. Non-Print Resources in Women's Education Equity. Washington, D.C.: U.S. Government Printing Office, 1978. Stock No. 017-080-01836-5; \$4.25.

General
information

Contains information about films, filmstrips, transparencies, audiotapes, videotapes, records, and multimedia sets pertinent to educational equity. Includes the following subject categories: biographies and portraits of women, history of women, laws and legislation/equal rights, family and lifestyles, sex roles and stereotypes, and women and work.

Women's Educational Equity Communications Network. Resources in Women's Educational Equity. Vol. 1. Washington, D.C.: U.S. Government Printing Office, 1977. Stock No. 017-080-01820-9.

General
information

Comprehensive listing of materials that were published in 1976 and are available through machine-readable data bases. Includes citations and an abstract of publications in the areas of education, legal issues, careers, sex differences, lifestyles, and health as pertain to women's educational equity.

Women's Educational Equity Communications Network. Resources in Women's Educational Equity. Vol. 2. Washington, D.C.: U.S. Government Printing Office, 1978. Stock No. 017-080-01947-7.

General
information

Similar to Volume 1; contains additional material published in 1976. Most material is that entered into computerized data bases from January, 1977 through spring, 1978.

Women's Educational Equity Communications Network. WEECN Resource Roundup: Girls and Women in Sports, February, 1979.

General information

Available from the Women's Educational Equity Communications Network (WEECN). Single copy free.

Includes annotated general resources pertaining to the participation of girls and women in sports. Presents materials specific to elementary/secondary schools and higher education. Also includes research studies, non-print resources, and national organizations and projects.

Women's Sports.

General information

Monthly magazine available from Women's Sports, P.O. Box 50483, Palo Alto, CA 94303; yearly rates--\$10.00 United States, \$12.50 Canada, \$15.00 elsewhere; single copy--\$2.50.

Comprehensive resource for women's sports, including information on current issues, research, legislation, Title IX, and other topics about physical activities for girls and women.

NON-PRINT MATERIALS

"Athletics and Physical Education." 30 min., 3/4" video-tape cassette, color.

Modules 2, 3, 4, 5

Produced by the City School District of New York, Brooklyn, NY. Anne Grant, Project Director. Available from the WEEA Publishing Center, EDC, 55 Chapel Street, Newton, MA 02160.

An accompanying manual, Venture Beyond Stereotypes: A Workbook for Teachers Concerned About Sex-Role Stereotyping, is also available.

"Breaking Barriers." Four audio cassettes.

Module 2

Available from Educational Activities, Inc., P.O. Box 392, Freeport, NY 11520; \$30.00.

In-depth interviews with women who are successful in fields traditionally reserved for men. It is an extension of the "Women Pioneers" filmstrip set and includes the same fields. Sports cassette contains interviews with M. King (diver), B. A. Cochran (skier), and A. Gwyn (basketball player).

"Coeducational Physical Education." Audiotape (#2) of presentation at AAHPER Convention, Seattle, WA, 1977. Speakers: Betty Hartman and Joe Dzenowagis.

Modules 4, 5

Available from On the Spot Duplicators, Inc., 7309 Fort Hunt Road, Alexandria, VA 22307. Phone (703) 768-0070.

Primarily concerned with safety issues in coeducational physical education. Addresses the effects of Title IX on instruction and intramural programs. Hartman examines "hazards which arise when females participate in coed physical education" and Dzenowagis looks at male influences in creating the hazards.

"Dumping Sandbags to Soar at WILL." 34 min., videotape, color.

Modules 1, 2

Available from Project WILL, Barat College, 700 West-high Road, Lake Forest, IL 60045. Phone (312) 234-3000, ext. 309. Sallyann Poinsett, Project Director.

Shows effects of sex-role stereotyping on women. Stops for discussion included. Guide for use provided.

"EDU-PAK on Sex-Role Stereotyping."

Modules 1, 2, 6

Available from National Education Association, 1201 16th Street, N.W., Washington, D.C. 20036; approximately \$66.

Consists of two color filmstrips with leader's guides, "Sex-Role Stereotyping--the Labels, the Reinforcements" and "Cinderella Is Dead"; two cassette tapes with discussion guides, "We Don't Know How to Grow People" and "Blue Is for Sky, Pink Is for Watermelon"; and two booklets, Sex-Role Stereotyping in the Schools and Nonsexist Education for Survival. Provides basic information about stereotyping and how to reduce it.

"Exercising Your Rights: Eliminating Sex Bias in Physical Education." Instructional module composed of 30 min. cassette tape, 5 transparencies, handouts, and bibliography.

Modules 1, 2, 3, 4

Developed by the Project on Sex Stereotyping in Education, Georgia State University, Atlanta, GA. Patricia B. Campbell, Project Director. Available from the WEEA Publishing Center, EDC, 55 Chapel Street, Newton, MA 02160; \$4.50.

Includes activities and information on stereotyping, myths and realities about female athletes, physical sex differences, and Title IX.

"Man and Woman, Myths and Stereotypes." 36 min., 160 color slides with audio cassette tapes. Modules 1, 2

Available from the Center for the Humanities, Inc., University of Minnesota, Minneapolis, MN 55455.

Examines ways men and women throughout history have regarded themselves and each other. Commentary includes excerpts of literature and music.

"Physical Education." Audiotape of Options in Education program #99, November 21, 1977. Modules 4, 5, 6

Cassette and transcript of program available from National Public Radio, 2025 M Street, N.W., Washington, D.C. 20036.

Presents interviews with students, teachers, coaches, and administrators at all levels of education. Includes discussion of competition, coeducational programs, and the pros and cons of Title IX.

"Physical Sex Differences: A Matter of Degree." 90 min., audiotape (#200) of presentation at AAHPER Convention, Seattle, WA, 1977. Speaker: Dorothy Harris. Reactors: James Wilkerson and Betty Atwater. Module 3

Available from On the Spot Duplicators, Inc., 7309 Fort Hunt Road, Alexandria, VA 22307. Phone (703) 768-0070.

Examines differences between males and females in terms of biological characteristics. Points out the commonalities of males and females, indicating that physical differences truly are a matter of degree.

"What Makes Sally Run." 29 min., 16mm film, color. Module 3

Available from KING-TV, 320 Aurora Avenue, N., Seattle, WA 98109.

Depicts women's athletics in the Northwest Washington area. Attacks myths about women's sports participation and biological sex differences. Note: Sexist language is occasionally used by the male narrator.

"Women Pioneers." Four color filmstrips, four cassette tapes, and manual. Module 2

Available from Educational Activities, Inc., P.O. Box 392, Freeport, NY 11520; \$64.00.

Documentary series featuring interviews and biographical sketches of six women pioneers of the 1970's in such fields as medicine, sports, politics, and transportation. The sports filmstrip introduces students to Babe Didrikson Zaharias, Micki King, Barbara Ann Cochran, Althea Gwyn, and others.

RESOURCE CENTERS

American Alliance for Health, Physical Education and Recreation (AAHPER), 1201 16th Street, N.W.; Washington, D.C. 20036. Modules 3 - 7

Professional materials and information published regularly in JOPER, Research Quarterly, and "UpDate." The entire issue of "UpDate," April, 1974, deals with sex bias and Title IX. Additional publications are available now and more are forthcoming.

Women's Educational Equity Act Publishing Center, EDC, 55 Chapel Street, Newton, Massachusetts 02160. General information
Phone (617) 969-7100 or (800) 225-3088.

The WEEA Publishing Center produces materials developed under the Women's Educational Equity Act Program. Catalog of products (films, audiotapes, booklets, videos) is frequently updated.

The Feminist Press, Box 334, Old Westbury, NY 11568. General information
Phone (516) 997-7660.

Non-profit organization which publishes materials and disseminates information on nonsexist education. Non-publishing activities include teaching inservice courses and workshops, providing speakers for groups, and research services at every level. Current catalog available free.

Institute for Equality in Education, University of Colorado at Denver, 1050 Ninth Street, Denver, CO 80202. Phone (303) 629-2786. Modules 2, 4, 6

A project funded through Title IV of the U.S. Civil Rights Act. Provides training, consultation, and resources for educators who are concerned with providing equal educational opportunities. Provides information about nature of sex differences, Title IX regulations, and classroom techniques.

KNOW, Inc., P.O. Box 86031, Pittsburgh, PA 15221. General information

Non-profit feminist publisher. Reprints information on materials, books, courses, and projects related to feminism and educational equity. Newsletter: KNOW. Free catalog upon written request.

Non-Sexist Teacher Education Project (NSTEP), School of Education, The American University, Massachusetts and Nebraska Avenues, N.W., Washington, D.C. 20016. Myra and David Sadker, Directors. Module 6

WEEA project designed to combat sex bias in teacher education courses. Currently developing nonsexist materials for preservice programs and a model non-sexist teacher education curriculum. Its NSTEP Newsletter is free to teacher-preparation educators and institutions.

Northwest Sex Desegregation Assistance Center, Portland State University, P.O. Box 751, Portland, OR 97297. Phone (503) 229-4628. Kathryn Scotten, Project Director. Module 4

U.S. Education Department project intended to help school districts in the Northwest achieve sex equity under Title IX.

Project on Equal Education Rights (PEER), National Organization for Women (NOW) Legal Defense and Education Fund, 1029 Vermont Avenue, N.W., Washington, D.C. 20005. Modules 1, 4

Monitors and disseminates information on Title IX, sex discrimination, and legislation affecting education in the United States. Its newsletter, Peer Perspective, is free. Publisher of Cracking the Glass Slipper: PEER's Guide to Ending Sex Bias in Your Schools (1977).

Project on the Status and Education of Women, Association of American Colleges, 1818 R Street, N.W., Washington, D.C. 20009. General information

Free information about studies conducted on roles of women in education and sex discrimination in the schools. PSEW Newsletter available upon written request. Publisher of Women and Film: A Resource Handbook and a directory, Women's Centers: Where Are They? which is free.

Research Center on Women, Alverno College, 3401 S. 39th Street, Milwaukee, WI 53215. General information

Contains feminist periodicals, books, audiovisual materials, and an information file on women.

Resource Center on Sex Roles in Education, National Foundation for the Improvement of Education, 1201 16th Street, N.W., Washington, D.C. 20036. Modules 1 - 7

Federally funded center to assist school systems, state departments of education and boards of education with equity issues and concerns. Free resource listings.

SPRINT, Women's Equity Action League Educational and Legal Defense Fund (WEAL Fund), 805 15th Street, N.W., Suite 822, Washington, D.C. 20005. Phone (202) 628-1961. Marguerite Beck-Rex, Director.

Module 4

National clearinghouse of information on sex equity and discrimination in sports sponsored by WEAL Fund. Has a toll-free hotline (800-424-5162) for information. Its newsletter, In the Running, is free.

Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.

General information

Publishes and distributes many materials. Of particular interest are those produced by WEECN and other educational equity projects.

Training Institute for Sex Desegregation of the Public Schools, University Extension Division, Federation Hall, Douglass College, Rutgers, The State University of New Jersey, New Brunswick, NJ 08903.

Modules 4, 5, 6

Project jointly sponsored by the University Extension Division and the Women's Studies Institute to improve the ability of school personnel to deal effectively with educational change mandated by federal and state desegregation laws. Provides inservice training to promote equal opportunity, conducts curriculum workshops, and aids school districts with technical assistance and materials.

Women's Bureau, U.S. Department of Labor, Washington, D.C. 20210.

General information

Supplies publication lists of resource materials about women and men and all aspects of their lives. Lists free or reasonably priced materials:

Women's Educational Equity Act (WEEA) Program, U.S. Education Department, Washington, D.C. 20202.

General information

Funds Projects throughout the country to develop programs in education and educational leadership to help educators in combating sex bias. Descriptions of projects available in Annual Reports, published yearly in September.

Women's Educational Equity Communications Network (WEECN), 1855 Folsom Street, San Francisco, CA 94103. Phone (415) 565-3032.

General information

An information service and communications system established in 1977 and operated by the Far West Laboratory for the U.S. Office of Education. Collects, screens, classifies, stores, and provides information on projects and materials related to women's educational equity. Facilitates contact among persons, groups, and agencies who are working on behalf of educational equity. Newsletter, Network News and Notes, issued quarterly; no charge.