

DOCUMENT RESUME

ED 103 387

SP 008 993

AUTHOR Curtis, Joyce M., Ed ; Heinecke, Mary, Ed.
TITLE Bowling-Fencing Guide. January 1975-January 1977.
INSTITUTION American Alliance for Health, Physical Education, and Recreation, Washington, D.C. National Association for Girls and Women in Sport.
PUB DATE 75
NOTE 166p.
AVAILABLE FROM American Alliance for Health, Physical Education, and Recreation, 1201 16th Street, N.W., Washington, D.C. 20036 (\$3.00)
EDRS PRICE MF-\$0.76 HC Not Available from EDRS. PLUS POSTAGE
DESCRIPTORS *Athletic Programs; *Physical Education; *Physical Recreation Programs; *Womens Athletics
IDENTIFIERS Bowling; Fencing

ABSTRACT

This guide is divided into two sections. The first deals with bowling, and contains 11 articles concerning the mechanics and teaching of bowling. Some of the areas covered are (a) suggestions for teaching bowling, (b) how to practice with an automatic pinsetter, (c) bowling as a medium for learning for the handicapped, and (d) application of a learning model to the teaching of bowling. Bibliographies are provided, including one on research and one on visual aids. Rules and scoring for both tenpin and duckpin games are included. The second section deals with fencing. Some of the articles in this section concern (a) student evaluation, (b) starting a high school fencing program, (c) an analysis of research, and (d) the fencing coach. Bibliographies (including one on visual aids), study questions, standards for ratings, rules, and techniques and procedures for officiating women's foil are also provided.
(PB)

U S DEPARTMENT OF HEALTH,
EDUCATION & WELFARE
NATIONAL INSTITUTE OF
EDUCATION

THIS DOCUMENT HAS BEEN REPRO-
DUCED EXACTLY AS RECEIVED FROM
THE PERSON OR ORGANIZATION ORIGIN-
ATING IT. POINTS OF VIEW OR OPINIONS
STATED DO NOT NECESSARILY REPRESENT
OFFICIAL NATIONAL INSTITUTE OF
EDUCATION POSITION OR POLICY

PERMISSION TO REPRODUCE THIS
COPYRIGHTED MATERIAL BY MICRO-
FICHE ONLY HAS BEEN GRANTED BY

AANPER

TO ERIC AND ORGANIZATIONS OPERAT-
ING UNDER AGREEMENTS WITH THE NA-
TIONAL INSTITUTE OF EDUCATION.
FURTHER REPRODUCTION OUTSIDE
THE ERIC SYSTEM REQUIRES PERMIS-
SION OF THE COPYRIGHT OWNER.

ED103387

Bowling—Fencing GUIDE

JANUARY 1975—JANUARY 1977

With Official Rules

Joanne Davenport, Chairperson
NAGWS Sports Guides and Official Rules Committee

Editors

Joyce M. Curtis, Bowling

Mary Heinecke, Fencing

NATIONAL ASSOCIATION FOR GIRLS AND WOMEN IN SPORT
American Alliance for Health, Physical Education, and Recreation

2

SP 008 993



Copyright © 1975 by the

**National Association for Girls and Women in Sport
American Alliance for Health, Physical Education, and Recreation**

Library of Congress Catalog Card No. 54-44468

Published by the
**AMERICAN ALLIANCE FOR HEALTH,
PHYSICAL EDUCATION, AND RECREATION**

A National Affiliate of the National Education Association

1201 Sixteenth St., N.W.

Washington, D. C. 20036

SPORTS LIBRARY FOR GIRLS AND WOMEN

NATIONAL ASSOCIATION FOR GIRLS AND WOMEN IN SPORT

Each Guide contains official playing rules for girls and women; articles on techniques, teaching, and organization; bibliographies; and certain special features related to the sports covered in the respective books. A section in each Guide presents information about the National Association for Girls and Women in Sport and the services it offers to teachers.

Current Edition		Stock No.	Next Edition
1973-75	Aquatics Guide	(243-25386)	June 1975
1974-76	Archery-Golf	(243-25532)	May 1976
1974-75	Basketball Guide	(243-25534)	July 1975
1974-76	Bowling-Fencing Guide	(243-25672)	January 1977
1974-76	Field Hockey-Lacrosse Guide	(243-25538)	June 1976
1973-75	Gymnastics Guide	(243-25392)	May 1975
1973-75	Outing Activities and Winter Sports Guide	(243-25394)	This Guide to be discontinued
1974-76	Soccer-Speedball-Flag Football Guide	(243-25542)	June 1976
1974-76	Softball Guide	(243-25488)	January 1976
1974-76	Tennis-Badminton-Squash Guide	(243-25544)	May 1976
1974-76	Track and Field Guide	(243-25490)	January 1976
1973-75	Volleyball Guide	(243-25396)	June 1975

No returns. Discounts on quantity lots of same title. Order for *Guides* will be filled with current editions unless otherwise specified. All orders from institutions and organizations may be billed if on official purchase order form and amount to at least \$10.00. Shipping and handling charges will be added to all billed orders. Postage stamps are not accepted as payment. No C.O.D. orders.

SCOREBOOKS

Official Basketball (243-07186), Field Hockey (243-06870), Softball (243-07184), Volleyball (243-07834)

ORDER FROM

American Alliance for Health, Physical Education, and Recreation
1201 Sixteenth Street, N.W., Washington, D.C. 20036

CONTENTS

NATIONAL ASSOCIATION

FOR GIRLS AND WOMEN IN SPORT 5

Sports Guides and Official Rules Committee

Interest Indicator 7

Standards in Sports for Girls and Women 8

BOWLING

NAGWS Bowling Committee 11

Suggestions for Teaching Bowling *Norman E. Showers* 12

The Four "C's" *Hal E. Brown* 16

A Rhythmic Approach to Effective

Ball Release *Rena Barsanti* 18

The Automatic Pinsetter and

A Method of Practice *Mimi Ryan* 22

Bowling Bingo—An Education Game *Jeanine Bennett* 25

Mass Vs. Distributed Practice in

Beginning Bowling *Betty Jane Fratzke* 29

Bowling: A Medium for Learning *Janet A. Seaman* 31

Application of Learning Model

to Teaching of Bowling *Anne Rothstein* 34

Bowling Research *Revised by Kathleen Black* 42

Bowling Bibliography *Revised by Sonzu Roach* 45

Bowling Visual Aids *Revised by Joyce Curtiss* 47

Collegiate Division of the WIBC 49

National Intercollegiate Postal

Tenpin Tournament 50

Official Duckpin Rules 51

Scoring the Duckpin Game 61

Tenpin Rules and Regulations 64

AJBC Rules Covering Organization of Leagues 70

FENCING

NAGWS Fencing Committee 79

Be Active in Fencing 79

Teaching Fencing to a Group of

Beginners *Denise O'Connor* 80

Innovative Approaches		
to Fencing	<i>Barbara Baxter Pillinger</i>	85
Training Fencers' Control of Distance	<i>Richard J. Perry</i>	89
Controlling the Point in Foil	<i>Richard J. Perry</i>	93
Evaluation of Students in Fencing	<i>Eloise Newell Clark</i>	94
Starting a High School		
Fencing Program	<i>Reverend Lawrence Calhoun</i>	97
The Fencing Coach	<i>Muriel Bower</i>	102
Suggested Team Score Sheets		
for Fencing	<i>Karen Kenyon</i>	105
An Analysis of Research		
in Fencing	<i>Margaret J. Safrin</i>	108
Athletic Dueling	<i>Emil Stanley Saint Pellicer</i>	113
Advancing to Avoid Retreating	<i>Mary Heinecke</i>	115
Fencing Bibliography	<i>Barbara J. Hoepner</i>	116
Fencing Visual Aids	<i>Barbara J. Hoepner</i>	117
NAGWS Officiating Services		119
Standards for Officials Ratings		120
Fencing Study Questions	<i>Kit Boesch</i>	131
Techniques and Procedures for Officiating		
Women's Foil	<i>Denise O'Connor</i>	136
Technical Rules of Fencing . .	<i>Edited by Mary Beth Kramer</i>	147

NATIONAL ASSOCIATION FOR GIRLS AND WOMEN IN SPORT

The National Association for Girls and Women in Sport is a nonprofit, educational organization designed to serve the needs and interests of administrators, teachers, leaders, and participants in sports programs for girls and women. It is one of seven associations of the American Alliance for Health, Physical Education, and Recreation.

PURPOSE

The purpose of the National Association for Girls and Women in Sport is to foster the development of sports programs for the enrichment of the life of the participant.

BELIEFS

The National Association for Girls and Women in Sport believes that:

Sports are an integral part of the culture in which we live.

Sports programs are a part of the total educational experience of the participant when conducted in educational institutions.

Opportunities for instruction and participation in sports appropriate to her skill level should be included in the experience of every girl.

Sports skills and sports participation are valuable social and recreational tools which may be used to enrich the lives of women in our society.

Competition and cooperation may be demonstrated in all sports programs, although the type and intensity of the competition and cooperation will vary with the degree or level of skill of the participants.

An understanding of the relationship between competition and cooperation and the utilization of both within the accepted framework of our society is one of the desirable outcomes of sports participation.

Physical activity is important in the maintenance of the general health of the participant.

Participation in sports contributes to the development of self-confidence and to the establishment of desirable interpersonal relationships.

FUNCTIONS

The National Association for Girls and Women in Sport promotes desirable sports programs through:

1. Formulating and publicizing guiding principles and standards for the administrator, leader, official, and player.
2. Publishing and interpreting rules governing sports for girls and women.
3. Providing the means for training, evaluating, and rating officials.
4. Disseminating information on the conduct of girls and women's sports.
5. Stimulating, evaluating, and disseminating research in the field of girls and women's sports.
6. Cooperating with allied groups interested in girls and women's sports in order to formulate policies and rules that affect the conduct of women's sports.
7. Providing opportunities for the development of leadership among girls and women for the conduct of their sports programs.

SPORTS GUIDES AND OFFICIAL RULES COMMITTEE INTEREST INDICATOR

The SGOR Committee is endeavoring to broaden its base of personnel and to strengthen its services to *Guide* readers. The purpose of this form is to offer readers an opportunity to join us in meeting this need. Please complete this form and send it to the SGOR Associate Chairman-elect, Helen Knierim, Wisconsin State Univ., Whitewater 53190.

Name _____

Professional Address _____

City _____ State _____ Zip Code _____

1. Check the Sport Committee(s) which would be of interest to you:

<input type="checkbox"/> Aquatics	<input type="checkbox"/> Field Hockey	<input type="checkbox"/> Softball
<input type="checkbox"/> Archery	<input type="checkbox"/> Flag football	<input type="checkbox"/> Speedball
<input type="checkbox"/> Badminton	<input type="checkbox"/> Golf	<input type="checkbox"/> Squash
<input type="checkbox"/> Basketball	<input type="checkbox"/> Gymnastics	<input type="checkbox"/> Tennis
<input type="checkbox"/> Bowling	<input type="checkbox"/> Lacrosse	<input type="checkbox"/> Track and Field
<input type="checkbox"/> Fencing	<input type="checkbox"/> Soccer	<input type="checkbox"/> Volleyball

2. Would you like to serve as a member of a Sports Guide Committee of your interest? * Yes No
3. Would you consider submitting an article to a Guide Committee as a prospective author? Yes No
Possible topic or title _____
4. Can you suggest topics for articles which you would like to have included in future *Guides*? (Please indicate sport.)
5. Are there others whom you would recommend for consideration as possible committee members or authors? Please indicate below. (Use additional paper, if necessary.)

Name _____ Sport(s) _____

Professional Address _____

City _____ State _____ Zip Code _____

Sports Committee Member Prospective Author (Check one)

*You may serve on only one Sport Guide Committee at a time.

SPORTS GUIDES AND OFFICIAL RULES COMMITTEE

STANDARDS IN SPORTS FOR GIRLS AND WOMEN

Standards in sports activities for girls and women should be based upon the following:

1. Sports activities for girls and women should be taught, coached, and officiated by qualified women whenever and wherever possible.
2. Programs should provide every girl with a wide variety of activities.
3. The results of competition should be judged in terms of *benefits to the participants* rather than by the winning of championships or the athletic or commercial advantage to schools or organizations.

Health and Safety Standards for Players

Careful supervision of the health of all players must be provided by

1. An examination by a qualified physician
2. Written permission by a qualified physician after serious illness or injury
3. Removal of players when they are injured or overfatigued or show signs of emotional instability
4. A healthful, safe, and sanitary environment for sports activity
5. Limitation of competition to a geographical area which will permit players to return at reasonable hours; provision of safe transportation.

General Policies

1. Select the members of all teams so that they play against those of approximately the same ability and maturity.
2. Arrange the schedule of games and practices so as not to place demands on the team or player which would jeopardize the educational objectives of the comprehensive sports program.
3. Discourage any girl from practicing with, or playing with, a team for more than one group while competing in that sport during the same sport season.
4. Promote social events in connection with all forms of competition.

SOURCES OF INFORMATION AND SERVICE

All requests for information about services should be addressed to: Program Coordinator, National Association for Girls and Women in Sport (NAGWS), AAHPER, 1201 - 16th Street, N.W., Washington, D.C. 20036.

BOWLING

NAGWS BOWLING COMMITTEE¹

1973-1975

JOYCE CURTIS, *Chairman*, Abilene Christian College, Abilene, TX
79601

ETHEL DOCHERTY, *Last Chairman*, Western Illinois Univ.,
Macomb 61455

JEANINE BENNETT, Univ. of Oregon, Eugene 97403

KATHLEEN BLACK, Central State Univ., Edmond, OK 73034

ANNE DICKERT, Columbia High School, Columbia, SC 28202

SARA HOPE, Indiana Univ., Bloomington 47401

SONJA ROACH, Lewis & Clark High School, Spokane, WA 99204

Advisory Member

MIMI RYAN, *Director*, National Intercollegiate Postal Tenpin
Tournament, Univ. of Florida, Gainesville 32601

NAGWS BOWLING COMMITTEE

1975-1977

CLAIRE ALBOM, *Chairman*, Town of Vernon Schools, Rockville,
CT 06066

¹Current *Guide* material was prepared by the 1973-75 committee; material for the 1975-77 *Guide* will be prepared by the 1975-77 committee.

Suggestions for Teaching Bowling

NORMAN E. SHOWERS

*Norman E. Showers, associate professor of physical education and chairman of men's physical education at Southern Illinois University, Edwardsville, completed his B.S. degree at Shurtleff College, Alton, Illinois, and his Master's and Doctor's degrees at the University of Southern California, Los Angeles. He has written several bowling articles and is the author of Bowling.**

Bowling teachers should know bowling's history, techniques, scoring, etc. as well as any other subject they might teach. It is probable that bowling teachers have been more negligent in proper teaching techniques than have teachers in other sports. A beginning player should not be allowed to find just any ball that feels good, assume a starting position that feels good, run to the foul line in any manner, and then throw the ball some place. We do not allow a player to bat cross-handed, stand at the plate with body bent double, or run up to hit a softball -- so why do some bowling teachers use this approach in the teaching of bowling?

Bowling is a lifetime sport with more active participants than any other sport. Any person may go to a bowling establishment, rent shoes, find a ball and throw the ball at the pins, thereby officially becoming a "bowler." Unfortunately, some of those who teach others learned to bowl this way and then proceed to disseminate this knowledge to students.

The bowling teacher should attempt to impart knowledge and techniques to help the individual become a better performer. Performance may not improve immediately, especially if poor mechanical habits need to be changed or other adjustments are required.

Class Organization

The class may take on any organization preferred by the instructor but a division into groups of three or four is beneficial. Many suggestions are available from the American Junior Bowling Congress and the Lifetime Sports Council.

The makeup of the class depends upon several factors: (1) whether coed or not, (2) size of class, (3) availability of bowling

*Published by Goodyear Publishing Co., Pacific Palisades, CA, 2nd ed., 1973.
(Editor's Note: Much of the material in this article is discussed in detail in this publication.)

lanes, (4) gym bowl equipment, (5) teaching aids and (6) teaching aides or assistants.

Suggestions for dealing with each of these factors are: (1) *coed*—the author has had better results by separating the class by sexes during the beginning instruction stage, then combining for some intraclass game competition composed of two-four person coed teams, either on a handicap or nonhandicap basis; (2) *class size*—one teacher can instruct effectively a class of 36, which permits three persons per lane over 12 lanes; (3) *availability of bowling lanes*—a teacher can effectively supervise students bowling across 12 lanes, but 6 to 10 lanes is more desirable. A disadvantage at most bowling centers will be a lack of a sufficient number of lightweight balls. Schools should purchase several balls for their own use if such a shortage exists; (4) *gym bowl equipment*—several good gym bowl sets are available for beginning instruction in the gymnasium, hall or large classroom. When using such equipment, it is important to see that students develop proper bowling habits as the balls and pins are considerably lighter. Bowling shoes are not needed but may be used. Some local bowling establishments may purchase these sets for school use. Remember, these are aids, not substitutes. Shy away from relays involving nonbowling techniques (speed games, running with ball, etc.); (5) *teaching aids*—several good teaching aids are available (some costly and some free), especially from the ABC (American Bowling Congress), WIBC (Women's International Bowling Congress), AJBC (American Junior Bowling Congress), BPAA (Bowling Proprietors Association of America), NBC (National Bowling Council—ten pins and duck pins), Athletic Institute, Brunswick Corporation, and the AMF Corporation. All these organizations have films and/or slides available upon request. Some have student handouts. Most of these sources do not charge for their services; (6) *teaching aides or assistants*—additional students may be effectively instructed by qualified assistants. Most bowling centers have qualified instructors available to help teachers. In addition, many areas have professional bowlers available for special instruction and exhibitions through the Brunswick and AMF bowling staffs.

Content

Items to consider in course content are:

1. History — origin, 9-pins, 10-pins, ABC, WIBC, AJBC
2. Introduction to the game — pin size and positions (numbers), lane descriptions, approach area, foul line, target arrow, 12' and 15' starting position, terminology
3. Scoring — frames in a game, scoring spares and strikes, computing averages, handicaps, marks
4. Equipment — proper ball selection (weight and span), shoes, dress

5. Rules – basic playing rules, rules of etiquette
6. Tournaments – local, association, regional, national
7. Techniques – steps (4 or 5), ball delivery (curve or hook), sighting (arrows), starting position for strikes (left- and right-handers), starting positions for basic spare positions (left- and right-handed), holding the ball at the start, push-away, release of the ball, body position during the approach, speed of the approach, ball speed, and follow-through form at foul line
8. Common faults – diagnosing common faults, symptoms and remedies
9. Finer points – playing the lanes, playing the angles, analyzing own game
10. Great bowling achievements – high scores, averages, special accomplishments

Skill Testing

Skill testing may be done by keeping track of pins left standing after the first ball in a frame and which of those remaining pins are picked or missed with the second ball in the frame. Some lanes may be equipped for single pin spotting (all manual spotters but not many automatic spotters); if so, utilize them for special spare situations.

Of more concern to the teacher should be proper bowling form (techniques). Does the player stand and hold the ball properly, sight on correct arrow and stand on the correct starting position? Does the player use the proper pushaway? Does she use four or five steps, walk in a straight line, keep from dropping the shoulder, lean forward rather than bend at waist, and walk with medium speed? Does the person stay balanced at the foul line, follow through correctly after release, slide with knee bent, and watch the ball hit the pins before moving? If a player successfully performs these skills, the spares and strikes normally will come her way.

One real key to skill testing is: Does the player stand in the most advantageous position and play the percentage by using as much lane width as possible? Unusual as it may seem, using the final bowling game scores is not a valid measure of skill for the beginning bowler. Scoring success at a later date should remain the goal. Most bowlers tend to drop in efficiency when changing styles, form, targets, etc., which in the long run will help them to perform better. Therefore, scores at the beginner level may be poor keys to ultimate success.

Most bowling establishments are equipped to allow *shadow balls* (bowling without the pins). By using this method, a bowler can perform or practice the entire skill as usual without concern for pinfall to see if the ball has gone where planned. Using *shadow balls* for skill testing is desirable.

Grades

There are many theories for weighting of grades in activity classes and bowling is no exception.

A suggestion follows:

- a. Form (40-50%) -- 4 or 5 steps, spot (arrow) bowling, curve or hook ball delivery, walking speed, ball speed
- b. Knowledge (30-40%) -- rules, where to stand for spares, etiquette, scoring
- c. Game scores (20-25%) -- consider average, high game, 2 or 3 game total of highest games bowled

Using the above system puts the emphasis with beginners and intermediates where it belongs -- on the basics.

A method of grading that invites many problems is considering first game-last game improvement or class improvement from first average to final average. This method will likely encourage poor performance. Goals to consider for beginners are hard to define as far as scores are concerned. A guide may be to consider the average national figures for bowling league averages of adult women (126) and men (154).

The Four "C's"

HAL E. BROWN

Hal E. Brown has instructed collegiate bowling classes and coached the men's and women's bowling teams at West Texas State University, Canyon, for the past five years. He is an AJBC and AMF certified bowling instructor.

A sincere desire and determination are necessary for either the beginning or experienced bowler to perform well. Learning and developing concentration, control, consistency and confidence are a must also.

Concentration

True concentration in bowling, as in any sport, is essential to accomplish aims and goals. Concentrating begins the moment you decide to bowl. You must concentrate while learning the basic fundamentals, studying the game, when practicing and most of all when you are ready to roll the ball. When you step on the approach to make a shot, block out of your mind everything around you, set your eyes on the spot or target and do not let anything break your concentration until you have released the ball. Then, you should concentrate on where the ball rolled and the results. Did you strike? If not, immediately start concentrating on your spare shot. It takes the same amount of concentration to pick up a spare as it does to strike.

If you have started the approach and your concentration is broken, try to stop. This may not be as easy as it sounds, but work on it. To deliver a ball down the lane without concentration on the shot will generally produce results not to your liking. True concentration is preferred to chin-firming and teeth-grinding determination.

Control

With concentration you can exercise control over the pushaway, steps, arm swing, finishing position, follow through, etc. Control of your entire body and actions is necessary until, through muscle memory, you develop a good basic approach. Even after your game is starting to improve and you become a lot smoother in your approach and delivery, you still must exercise some control of the body or you can easily develop bad habits and become confused.

Consistency

With control you will develop consistency, which is the ability to do the same thing repeatedly. To develop both control and

NAGWS BOWLING-FENCING GUIDE

consistency, you must be willing to practice, practice and continue to practice. In bowling, as in any sport, there is a time to practice and a time to enjoy the game. When you practice, concentrate and exercise control. Do not play around. Know what part of the game you are working on and strive to perfect or correct it. If your game is not right and you cannot determine what the problem is, stop, and get professional help; to continue will certainly not help your consistency.

Perfect approaches, if any, are very few. To try continually to correct or change something in your approach which is unnatural may be impossible. It is better to take the good parts of your game and build your future game on what you are doing right. With the proper knowledge you can learn to compensate for your inability to execute a perfect approach, yet still score and have a good sound game. We all cannot do exactly the same. There is plenty of room for individuality in every bowler who has a good sound game embracing all the fundamentals. Concentrate, exercise control, be consistent and develop your own style.

Confidence

Confidence is something that no one can teach, but you can develop as you practice and play the game. From the very first you must maintain a positive attitude. Learn to trust your ball and have confidence that you can make the shot. Without confidence and a positive approach, your interest will soon die and so will your game. Confidence comes from experience and experience comes only from practice and playing the game.

In any sport, the four "C's" are important, but you must first learn how to concentrate. Then, through the power of true concentration, you will be able to exercise control, become consistent and build confidence in yourself and your game.

A Rhythmic Approach to Effective Ball Release*

RENA BARSANTI

Rena Barsanti earned degrees from Sacramento State College and the University of Wisconsin and is presently chairman of the women's physical education department at Sacramento City College. She is a three-time All Events winner in the Sacramento City Bowling Tournament.

There are two fundamental beliefs that may serve as guidelines to a teacher when instructing new bowlers. First, a beginner can learn faster and better when the new skill is based directly on familiar motor skills. Second, there just may be more than one correct or effective way to bowl. A new bowler should be encouraged to select the movement pattern best suited for her. The following information is directly associated with these two assumptions.

A thorough understanding of a rhythmic step—arm-swing pattern with consistent performance is essential to successful ball delivery. The rhythmic approach may be defined as that step—arm-swing pattern in which there is an even flow (succession) of steps together with one complete arm swing. As the first step is taken the arm swing must also begin, and there may be no stopping or hesitation until the end of the approach. The end of the approach occurs when the final step-slide is completed and the bowling arm has followed through.

Everything essential to a rhythmical approach may be learned before the first ball is delivered down the lane. This approach can be learned anywhere there is adequate room to move. At this point the lanes are only an emotional aid to learning.

Step Pattern

A comfortable, natural, rhythmical *step pattern* should be established before concentrating on arm swing and ball delivery. The first step should be taken with the bowler's favorite foot. She should continue to walk at an even tempo for a specified number of steps and finish with a slide-lunge step. Once the bowler begins the approach, it is important that she face forward toward a specified target until the finish. The length of stride is a personal choice, just so long as the stride is comfortable and, insofar as possible, each step

*This article is a brief summary of the bowling information covered in the book, *Bowling*, by Rena Barsanti, published in 1974 by Allyn and Bacon, sed with permission.

is the same length. As skill increases the bowler may find it convenient gradually to increase the length of steps from a short first step to longer final steps. But in the beginning, the performer should only be concerned with a natural, rhythmical flow of steps.

The actual number of steps in the approach is determined by what feels most natural and, to a degree, by the step pattern used by most skilled bowlers. The step pattern will be either four or five steps. The three-step pattern is not recommended although it is used by some successful bowlers. The arm-swing pattern quite readily and rhythmically fits a four- or five-step approach. On the other hand, it is almost impossible to have a free-flowing, even approach when the arm swing is added to a three-step pattern. Time and again, the three-step bowlers become "short-step," uneven-approach bowlers who appear to be "flying" or "jumping" to the line.

A slide-lunge with the forward foot on the last step completes the step pattern. Body weight is forward—actually felt on the forward part of the front foot. The knee is flexed, there is hip flexion, and the torso is semi-erect. The bowling hand reaches forward toward the target with eyes focused on the target. The momentum created by the natural walking tempo will need to be controlled as the last step is taken. Control is most efficiently accomplished by *sliding* into the lunge position rather than stepping into it. The skillful performer can maintain this final position at the line almost indefinitely—certainly for a minimum of three seconds. The body should be so well balanced that the bowler can have perfect control at the moment of release.

The bowler should begin practicing the step pattern with good slide-lunge position using either a four- or five-step approach. Body position throughout the approach is square to the target. The key here is to keep the entire body "square." Square means that: (1) the body (shoulders, torso, hip-pelvic area) faces straight ahead; (2) there is no appreciable lowering or dipping of the shoulders on one side; (3) there is no trunk twist or rotation; (4) there is no hip-pelvic area rotation; and (5) every major body part faces toward the target.

Concentration on "square to target" approach should enable the bowler to go into good balanced position at the delivery line. Good balance at the line is when: (1) body weight is well forward over the ball of the slide foot; (2) the slide foot points straight toward the target; (3) there is knee flexion with hip flexion sufficient to permit a comfortable semi-erect torso position; (4) shoulders and hips are square and the bowling arm reaching toward the target; and (5) the head is up with eyes focused on the target. The entire body appears (and feels) as if it is leaning toward the target.

Arm Swing

Once the bowler can consistently perform the four- or five-step

approach with good balance at the line, it is time to add one complete arm swing. One complete arm swing is a continuous, sequential action which includes forward underarm (pushaway), backward underarm (backswing) and forward underarm direction (forward swing). A good arm swing literally hangs and moves freely from the shoulder joint. There is continuous, rhythmical movement beginning with the first step, with no hesitation or stopping anywhere in the swing, and finishing with the reach for the target on the slide-lunge. The feet move in the same even tempo learned. Nothing changes; an arm swing is simply added to the step pattern.

The entire arm swing is an underarm pattern. The arm swing fits a four-step approach as follows. The arm is moved forward (pushaway) as the first step is taken. During the next two steps, the arm is swung freely in a backward direction (backswing). On the final step-slide, the arm is swung freely forward (forward swing) in order to release the ball. It is critical that the pushaway and first step occur simultaneously if the bowler hopes to finish the arm swing and slide-lunge together at the line. The first step with the pushaway enables a bowler to get started, that is, to actually move freely and easily into the entire approach pattern.

A complete arm swing also fits a five-step approach. The only difference is that there will be *two* steps during the pushaway.

The angle of the swing should be perpendicular to the floor and the length is approximately from shoulder height in the backswing to at least shoulder height in the follow-through. Other swing angles can be used — a figure-eight arm-swing pattern or whatever. However, any bowler who chooses a nonstraight swing pattern must be prepared to spend two or more times as much effort and practice as the perpendicular swing bowler to develop a consistent, full swing so necessary for good ball release. The key to accuracy is a consistent swing built upon a rhythmical step pattern. Accuracy is difficult to develop when a movement pattern is complicated or nonrhythmical.

The speed of the swing is directly related to the tempo of the step pattern. This is one of the simplest concepts to comprehend, yet is often the most difficult to achieve. Begin the swing with the first step and end with the completion of the slide-lunge, moving the arm throughout. Any tempo is correct as long as the bowler maintains good body control throughout the approach and can release a ball with a reasonable amount of force. The difficulty revolves around the "moment of release." When everything is performed rhythmically and is well timed, the ball will be released just as the slide is finished. Split-second timing separates the skill level of good bowlers and professionals. As skill increases, this split-second timing of ball release becomes more refined.

Ball Roll

Once the bowler develops a rhythmical, natural, complete approach pattern that includes a free arm swing, even tempo-length steps and good balance at the line, she can begin to actually roll a bowling ball. When every part of the approach is automatic, it becomes relatively easy to get accustomed to ball weight and hand position for specific ball roll. Too many bowlers are concerned with "getting good roll" or "fingers into the ball" before they have the approach well established. No amount of "fantastic ball roll" can make up for an inconsistent approach. Accuracy and ball roll (hand/finger action for specific type of roll) are the end result of the approach pattern. Granted, a bowler can sometimes roll a beautiful ball that results in a resounding strike while off-balance or when she has reached the line "ahead of the ball." But she cannot count on consistent performance over five games or more if her approach pattern is not completely rhythmical, natural and automatic.

The individual who aspires to become skillful would spend her time and effort much more wisely if she concentrated on the approach until it is efficient rather than being concerned too soon about "hook lift" action.

The Automatic Pinsetter and A Method of Practice

MIMI RYAN

Mimi Ryan is an assistant professor in the college of physical education, health and recreation, University of Florida, Gainesville. She has served as director of the Intercollegiate Postal Bowling Tournament.

If you will discipline yourself to practicing the three basic angles in bowling, there is not a spare you cannot convert. How many times have you said that to students in beginning bowling classes? The problem is, how do you get students to practice the three basic angles now that most bowling lanes have automatic pinsetters? Beginning bowlers are fascinated by all the pins sitting in front of them. . . .60 feet way! The only thing they want to do is wipe those pins off the lane. Granted, if they conquer the first angle, the strike angle, they have nothing else to worry about.

When we set our own pins, it was much easier to practice picking up certain pins. Today, however, with automatic pinsetters, it is not always possible to have specific pins continually set up. What are some ways, then, of getting students to practice hitting certain pins? The beginning bowler must learn not only the strike angle, but also the 7-pin conversion and the 10-pin conversion. Why not require students to contact certain pins in certain frames and score 10 points if successful? Try the following:

1. Bowl two balls per frame.
2. Bowl the first four frames for strike rocket, the next three frames for the 7-pin conversion and the last three frames for the 10-pin conversion. (Reverse the 7 and 10 for left-handers.)
3. Reset if strike pocket has been hit when going for the strike.
4. If the 7 or 10 pin is gone, and you are attempting to pick it up, roll for the empty space, or reset.

Scoring System

1. Score 10 for hitting the strike pocket, just the 7 or just the 10 pin.
2. Score 5 for a Brooklyn hit on a strike attempt or having the ball contact the 4-7 pins or the 6-10 pins.
3. For a head-on hit, the score will depend on whether the ball is more in the 1-3 or the 1-2 pocket.
4. Score minus 10 for a channel ball.
5. Score minus the number of pins knocked down if the ball contacts pins other than those that are supposed to be contacted. Direct ball contact with the specified pin(s) is the determining factor in scoring.

NAGWS BOWLING-FENCING GUIDE

Sample Game

Following is a ball by ball, frame by frame explanation of a game using this new scoring method. (Note: This score is for the right-handed bowler.) At the end of the explanation is the line score as it would appear on the student's score sheet.

1st frame – Bowling for strike, first ball contacts the strike pocket.

Score +10, whether or not all the pins are knocked down. Reset the pins. Second ball is a Brooklyn. Score +5. Total 15.

2nd frame – Ball hits the 3-6 pins, knocking down 8 pins. Score -8.

Reset pins. Second ball hits the Brooklyn, score +5. Total for this frame -3.

3rd frame – Ball hits the 2-4 knocking down 7, score -7. Reset pins.

Second ball hits the 2-4 again, this time leaving 2 pins. Total for this frame, -15.

4th frame – Ball hits proper strike pocket, score +10. Reset. Second

ball hits the proper strike pocket, score +10. Total for this frame +20.

5th frame – Ball hits the 4-7 pocket, +5. Second ball rolls through

the same spot not contacting any other pins, +5. Total for the frame, +10.

6th frame – Ball hits the 2-4, knocking down 5 pins, -5 (even though

the 7 pin went down, it did not go down because of *direct* contact.) Reset pins. Second ball knocks down the 4-7, score +5. Total for the frame, 0.

7th frame – Ball hits the 1-3 pocket, knocking down all the pins,

score -10. Second ball hits the 4-7, score +5. Total for the frame, -5.

8th frame – Ball hits the 3-6, knocking down 6 pins, score -6. Reset

pins. Second ball rolls into channel, score -10. Total for the frame, -16.

9th frame – Ball hits the 3-6 knocking down 6 pins, score -6. Reset

pins. Second ball hits the 6-10, +5. Total for the frame, -1.

10th frame – Ball goes into the channel, -10. Second ball contacts

the 6-10, +5. Total for frame, -5.

Bowl only for Strike				Bowl only for 7 pin angle			Bowl only for 10 pin angle			Total										
1	2	3	4	5	6	7	8	9	10											
+10	+5	-8	+5	-7	-8	+10	+10	+5	+5	-5	+5	-10	+5	-6	-10	+5	+5	-10	+5	
+15	+12	-3	+17	+27	+27	+22	+6	+5	0											0

It is quite possible to finish with a minus score after bowling 10 frames with this method. If this occurs, it is a good indication that the student needs to spend more time practicing the three basic angles.

Using this method will take some perseverance on the part of both the instructor and the student. Some may dislike seeing minus numbers. However, they should realize that if they are getting a minus score, their regular bowling score would be low. The satisfaction received using this teaching method comes when the class begins to use the regular scoring system.

This practice method can be one way of helping students learn the three basic angles. Once they have fairly well mastered the three angles, their scores should increase and they should be ready to learn some of the finer points of bowling.

Bowling Bingo — An Education Game

JEANINE BENNETT

Jeanine Bennett is at the University of Oregon, Eugene, where she coordinates the bowling instructional program and instructs coeducational bowling. She received the B.A. and M.S. degrees from the University of Washington, Seattle, and is presently working on the Ph.D. degree at The Ohio State University, Columbus.

Bowling Bingo is an educational game that is useful in a variety of forms: as a preview to the bowling unit, a reinforcement to learning, a review or test and as a motivator to self-testing. The game may be made as elementary or sophisticated, as simple or analytical as the instructor wants. It may be modified to cover the unit in any manner desired. It is most suitable to the secondary level but may be adapted vertically from the elementary to the collegiate level.

Suggestions to Instructor

1. The bingo card is flexible to the size of your choice. It can consist of 9, 16, 25 or more bowling items (squares) on any one card. Items need not be limited to terminology, but can extend to any pertinent bowling information, skill techniques and behavioral objectives sought by the student.
2. Student assistants can prepare any number of cards or sheets of paper in bingo form prior to the date of use. Each card can be numbered differently, have different items and be in any combination desired by the instructor.
3. Use of Bowling Bingo can take various forms and be useful in a variety of ways, dependent upon the ingenuity of the instructor. For example, with each card numbered differently, all terms to be used may be listed on the chalkboard or given students in a handout. Using personal strategy to seek "blackout" (when all numbers on the card are blocked out), a student is given an equal number of turns to select and define a term. A term correctly defined allows blacking out that square by that student as well as her classmates who have that number on their card. A winner is declared when the first student achieves "blackout."

Regular bingo may take the form of having each student in turn select a number and its term or item. All students wishing to use that number and item on their card must write a correct definition or answer. The first student calling bingo shows her card with her bingo numbers, then gives her corresponding answers. She scores bingo if all answers are correct. If not, the game continues.

4. Filling in the terms and corresponding numbers in the bingo squares prior to the game, rather than just numbers, is optional.

5. Provide beans or small blacks to cover the squares if bingo cards or papers are to be reused.

6. Bowling terminology, definitions, analysis and strategies may be found in many bowling resources. (See *Bowling Bibliography*, pages 45-46.) Examples of terminology and their use are given below and on the bingo card illustration, Figure 1.

<u>Item</u>	<u>Definition</u>
-------------	-------------------

Some Terminology Items¹

1. Approach	The area on which the bowler takes his steps to the foul line; also the act of moving to the foul line to deliver the ball
2. Anchor	Last member in the team lineup, usually the best bowler
3. Baby Split	The 2-7 or the 3-10 split
4. Back-up	A ball that fades to the right (for a right-hander) on its way down the lane
5. Big Four	The 4-6-7-10 split; also called "double pinochle"
6. Blind Score	An absent bowler's score
7. Blow	An error or miss
8. Brooklyn	Hitting left side of head pin (right-hander)
9. Foul Line	Black line separating lane and approach
10. Handicap	An adjustment in scores to compensate for unequal matching
11. Head Pin	The number one pin; the front pin
12. Holding Lane	Same as a fast lane; one that cuts down on the amount of hook
13. Leadoff	The first bowler in the lineup
14. Lofting	Throwing the ball onto the lane from too upright a position, thereby causing it to thump as it hits the lane

¹ Lou Bellissimo, *The Bowler's Manual* (Englewood Cliffs, NJ: Prentice-Hall, 1969), pp. 106-108.

- | | |
|------------------|---|
| 15. Mark | Getting either a strike or a spare |
| 16. Running Lane | Same as a slow lane; one that allows more hook |
| 17. Sleeper | A hidden pin in a leave |
| 18. Spare | The score for knocking down all pins with two balls of a single frame |
| 19. Split | Two or more nonadjacent pins left standing after the first roll, neither of which is the head pin |
| 20. Tap | A pin left standing after an apparently good strike hit |
| 21. Turkey | Three successive strikes by one bowler in a single game |
| 22. WIBC | Women's International Bowling Congress |
| 23. Working Ball | A very effective ball having lots of hook spin |

Some Strategy Items

- | | |
|--------------------------------|---|
| 24. Playing to Lane Conditions | Discuss the adjustment the bowler makes to allow for varying lane conditions; slow, fast, slick, block. |
| 25. Types of Ball Trajectory | Discuss the hook, straight, curve and backup (reverse hook) trajectories. |
| 26. Types of Ball Release | Straight, full roller, semi-roller, spinner, full spinner, reverse roll |
| 27. Aim Techniques | Discuss the spot, pin and line aim techniques. |

Some Analysis Items

- | | |
|---|--|
| 28. Ball Pitch | Discuss zero, forward, reverse and other forms of pitch. |
| 29. Some Causes for Loss of Balance at the Line | Examples: lack of knee bend of the slide foot, weight incorrectly distributed, poor timing, rushed arm swing; stance too close to the foul line ² |
| 30. Some Causes for a Hop in the Footwork | |

² Bellissimo, *Bowler's Manual*, p. 48.

Other Items: Points of Etiquette, History

Items could include test questions in the form of essay and objective types.

15	9	23	11	25
Mark	Foul Line	Working Ball	Head Pin	Types of Ball Trajectory
26	2	17	6	12
Types of Release	Anchor	Sleeper	Blind Score	Holding Lane
21	13	28	1	5
Turkey	Leadoff	Ball Pitch	Approach	Big Four
24	14	19	13	30
Playing to Lane Conditions	Lofting	Split	Baby Split	Cause for Hop in Footwork
10	27	20	22	7
Handicap	Aim Techniques	Tap	WIBC	Blow

5 X 5

Figure 1. Bowling Bingo

Instruction to Player:

1. The teacher or student will call out an identifying statement, term or number, as determined before the game begins.
2. Block out on your card the appropriate block called if it is on your card. Give the appropriate verbal or written response as the rules indicate.
3. Raise your hand or call "Bingo" when you make a bingo.
4. A bingo is made by completing any vertical, horizontal or diagonal line. If Blackout is played, all squares must be covered to achieve bingo.

Mass vs. Distributed Practice in Beginning Bowling

BETTY JANE FRATZKE

Betty Jane Fratzke received the B.S. degree at Greenville College, Greenville, Illinois, and the M.S. degree at the University of Illinois at Urbana. She is presently assistant professor at LeTourneau College, Longview, Texas.

Bowling is one of the popular lifetime sports in America. Coordination, skill and strength are needed to play the game well. For these reasons a basic instruction course is usually offered in the physical education program.

Psychologists and motor learning specialists have done much research on the question of mass practice (longer practice sessions over a short period of time) vs. distributed practice (short practice sessions over a long period of time) in a number of situations and various types of learning. To determine whether one practice schedule was superior to another in learning and improvement of bowling skill, the writer conducted a study during the 1970-71 school year at LeTourneau College. Three bowling classes were offered, each class following a different time schedule. Section A met for two hours at a time, twice a week for 8 weeks. Section B met for two hours at a time, once a week for 16 weeks. Section C met for one hour at a time, twice a week for 16 weeks. Enrollment in these sections was as follows: Section A, 27; Section B, 36; Section C, 30.

Instruction was the same for all classes. The same instructor taught all classes and followed the same lesson plans using two lessons per day for the two-hour sessions. Two kinds of aim, spot and pin and two kinds of delivery, hook and straight ball were presented. The student was allowed to choose whichever was most successful for him. The professional instructor at the bowling alley taught spare angles. Instructional films, produced by AFB Brunswick, National Bowling Council, Parkway Ave., Chicago, were shown to all classes. The students were taught to use the four-step approach. All classes were coeducational with the average age being approximately 21.

At the end of the tenth hour of instruction and practice, each student's beginning bowling score was determined. This score was the average of the student's first three complete games scored. The remainder of the course was spent in league play. At the completion of the course each student's final average, based on his final six games, was calculated. The original and final averages were the scores used to analyze improvement.

College students in a beginning bowling class present a wide variety of previous experiences with bowling. Therefore, an analysis

of covariance was used in comparing the three sections. This method allowed all students to start at the same point level, statistically, disregarding their initial scores so the improvement observed was actually a change caused by the class and not previous experience.

The analysis of the data, slopes, means and regression lines proved the three classes to be significantly different from each other. The greatest area of difference was that of groups B and C in comparison to group A. The time schedule followed by class A was determined to be a superior to that followed by the other two groups.

Conclusion: A bowling class scheduled for two hours at a time meeting twice a week for eight weeks was the most conducive to improved bowling scores.

Bowling: A Medium for Learning

JANET A. SEAMAN

Janet Seaman holds degrees from Omaha University and the University of California, Santa Barbara, where she was the Western Region Collegiate All-Events Champion in 1966. She received her doctorate from Indiana University, Bloomington, and is currently an assistant professor at California State University, Los Angeles.

When most of us go bowling, we think nothing of asking for a pair of shoes, putting them on, selecting a ball, putting our names on the score sheet, and becoming totally involved in the excitement of the game. For certain adults and children in our society, however, this process is a very complicated sequence of learning experiences for they are mentally retarded. The retarded find just as much excitement and opportunity in competition and learning as any other bowling student. The main differences in teaching the retarded to bowl lie in task analyses and methods of teaching.

Task analysis for the retarded is akin to the part-whole method of teaching which physical educators often use. The retarded, particularly those in the lower ranges of intellectual functioning, have difficulty "chunking" material. That is, they have difficulty breaking learning experiences into meaningful units. It is, therefore, necessary for the teacher to do it for them. A task, such as asking for shoes at the desk, may require a task analysis, or "chunks" of information to be taught, before the entire task is learned. An analysis of this task may take the following form:

Task: The student is to obtain a pair of bowling shoes from the desk.

- A. The student is to go to the desk.
 - 1. If the student is able to do this, go to B.
 - 2. If the student is unable to do this, tell him "go to the desk" and point to it.
 - 3. If the student is still unable to do this, lead him to the desk. Return to A and repeat until learned.
- B. The student is to tell the attendant his shoe size.
 - 1. If the student is able to do this, go to C.
 - 2. If the student is unable to do this, instruct him to tell the attendant his shoe size.

3. If the student is still unable to do this, tell him the shoe size from a list kept by the teacher.
- C. Once the attendant places the shoes on the desk, the student takes the shoes and awaits further instruction.
1. If the student is able to do this, he has completed the task.
 2. If the student is still unable to do this, guide his hand to pick up the shoes and advise him to await further instructions. Return to C and repeat until learned.

Now, this analysis may appear rather cumbersome, particularly in light of the several tasks mentioned at the beginning of this article. The purpose of this discussion is not to imply that these tasks need to progress sequentially, but rather to point out the myriad of learnings that can and should occur within the bowling context.

For most retarded persons, learning occurs more rapidly in a meaningful and motivating context. What can be more motivating than learning to tie the shoestrings on your own pair of bowling shoes? Certainly the implications of what is to follow are meaningful and motivating. Bowling, besides being a physical activity, serves as a powerful medium through which numerous learning experiences of value can occur. These must be planned for, however, and that is where teaching methods become important considerations.

Learning takes place in different ways as a result of many different types of stimuli. Most individuals learn regardless of whether the stimulus is auditory, visual, tactual or kinesthetic. Most mentally retarded persons need as many forms of stimuli as possible which combine to provide the necessary number and magnitude of meaningful input necessary to help them learn. A multisensory approach, therefore, is in order when teaching motor skills to the retarded.

Teaching Number Concepts

One use of multisensory methods, experimented with by this author, was in the form of teaching number concepts to trainable mentally retarded children and adults. The initial criterion, a meaningful and motivating context, was provided. Being able to count the number of bowling pins they themselves had knocked down was certainly of interest to most bowlers in our group. Teaching the concept of value, based on pinfall, required the use of auditory, tactile and visual input. Since determining pinfall requires a subtraction process—those left standing subtracted from the full array of 10 pins—we began with the task of counting those pins standing.

At first, the bowler was asked to count the total array of pins standing on the lane. Often this is not easy even for seasoned bowlers since pins in the second and third rows are often hidden from view. We simulated the array by holding up 10 fingers (visual stimulus) which also gave a more concrete way to proceed with the counting. Later we developed a teaching aid, a miniature lane with small pins, so that the bowler could make even more of a direct association with what was seen on the lane.

The youngster was then instructed to count the pins aloud (auditory stimulus) while touching (tactile stimulus) each one. To those for whom the visual stimulus had little or no meaning, the exercise of hearing the numbers and touching the pins from 1 to 10 brought more meaning to the magnitude of "ten-ness" of the array. From there, we proceeded to help the student push over the pins on the teaching aid which corresponded with their pinfall after rolling each ball. Again they counted, in the same manner, only those pins standing. The criterion for learning this phase of the task was met when the youngster could count the pins standing on the lane without the use of the teaching aid.

The total task — to determine the *pinfall* after rolling each ball — was then pursued in the same fashion. Using the teaching aid, the bowler saw, touched and counted the pins knocked down which corresponded with his pinfall. Even though those pins knocked down on the lane were out of sight, the students approached the criterion of being able to determine the pinfall by using the multisensory input from the teaching aid.

Conclusion

Bowling provides a medium through which much learning can occur in our quest to normalize the retarded into the mainstream of society. The normal pattern of movement to the desk, to the bench, to the ball rack and to the lane is a valuable learning experience if the retarded are not "to stand out in a crowd" of nonretarded bowlers. Putting on and tying their shoes, waiting their turn, being aware of others' success and so on, are all a part of bowling and are valued behaviors in other contexts as well. Bowling, therefore, should not be thought of as an end in itself for the retarded, but rather a beginning—a means to the end of totally integrating the retarded into one aspect, at least, of a physically active society.

Application of Learning Model to Teaching of Bowling

ANNE ROTHSTEIN

Anne Rothstein, an associate professor at Herbert H. Lehman College, Bronx, New York, has published in the NAGWS Bowling Guide previously. She conducts research in motor learning and performance and is planning a program of research to clarify some of the information in this article. She is editor of Bridging the Gap.

In recent years there have been attempts by educators to optimize the learning environment. Concomitant with this quest for quality in performance has been a knowledge explosion and a drawing together of known facts into organized frameworks. In physical education in particular, this effort has recently increased. In the past there have been attempts to explain the stages of skill learning (8); the probabilities of learners moving from a naive state to a knowledgeable state (35); the type of abilities necessary for success at the various stages of skill learning (9); and the formulation and use of motor plans (26). While these efforts have considerably advanced our knowledge about skill learning, it was not until recently that descriptions of how students proceed through the learning process have appeared (11, 21, 29, 42). These models have utilized information from many diverse fields to describe the events which occur in skill learning. It is possible to use one of the models and show how its use will facilitate the teaching of bowling. Facilitation can occur in two ways: the model may aid the teacher in structuring the learning environment and/or it may help in the analysis of the student's performance.

The Model

The model to be used is the one suggested by Gentile (11), a problem-solving model. To attain a specified goal (a strike), the performer must proceed through a series of intermediary steps. The teacher's role is to facilitate goal attainment by expediting successful completion of the intermediary steps. These steps have been identified as:

Goal: The specific outcome to be attained

Display: All stimuli in the environment

Selective Attention: Choosing those stimuli from the display which are relevant for the goal attainment

Formulation of Motor Plan: Organization of a movement sequence which will match the environment and lead to goal attainment

Response: Execution of the movement pattern

Feedback: Information about goal attainment and movement pattern

Decision: Evaluation of present response and goal attainment and formulation of a strategy for the next response

Next Response: Beginning sequence again at goal

Application To Bowling

It is possible, by taking each of the steps of the model in turn, to suggest ways in which the learner can be helped through the learning process. Whenever possible, research from bowling will be cited.

Goal. Bowling is classified as a closed skill. Consequently, the environment is relatively fixed, stable, unchanging (18) and it is possible to speak in terms of both *process* and *product* goals. *Process* refers to the way in which the student delivers the ball, while *product* is the result or change produced in the environment. The fact that bowling is a closed skill enables us to say with some certainty that *consistency in the process* is more desirable than diversity (11). This in no way assumes that a specific form should be imposed, merely that the student should be encouraged to develop consistency in output.

There are a number of different goals which relate to the results produced in the environment. The teacher may stress pin bowling, in which the goal is to roll the ball towards particular pins, or spot bowling, in which the student's goal is to roll the ball over a specific spot. It is quite likely that the bowler will experience greater success with the spot goal because it is a simpler task, the distance is shorter.

Once the student can roll the ball over a particular spot with consistency the teacher may suggest changing the spot. The student is therefore working first on reliability of delivery and then on accuracy. Insistence on accuracy first may lead to frustration for the student. Shadow bowling should be used in practicing for spot aiming so that goal confusion will not occur.

Display and selective attention. Display consists of all of the information available in the environment at any given time. Successful selective attention refers to the use of selected portions of this available information. The selective attention process requires the individual to recognize stimuli in the environment and then discriminate relevant stimuli from irrelevant information. Since bowling is a closed skill, the relevant stimuli will remain relatively fixed and the learner, once made aware of these stimuli, should be taught to concentrate her full attention on them while ignoring stimuli which are irrelevant to skill execution.

The teacher of bowling can use this information in two ways: 1) to draw the learner's attention to those stimuli which are relevant by highlighting them in some way, usually verbally or visually, or 2) by paying particular attention when demonstrating or verbalizing the skill (the learner may be extracting information which you do not intend). We will consider the first.

There have been a number of studies which have systematically manipulated the learner's attention and the results have, for the most part, been favorable. Cox (5) used a visual electronic unit, Hot Spot (a device which lights up when the ball passes under it) to enhance the bowler's attention to aiming and found that bowlers using the Hot Spot were more effective than those who did not use it; similar results were reported by Church (4). The Hot Spot is discussed by Roney (31). The fault with the device is that the ball could still pass under it and miss the 1-3 pocket by a considerable margin. For that reason a 2-point aiming system would be better. Summers (40) evaluated the merits of spot aiming vs. pin aiming and found spot aiming to be superior for college women. This effect may be due, in part, to the fact that with a closer point of aim there are fewer distractions and less room for error.

Gansel (10) attempted to focus the learner's attention by employing goggles which limited vision. Unfortunately the use of the goggles was not significantly better than nonuse. The observation was made, though, that the group which used the goggles for a longer period of time seemed to have a higher mean. The logical test would be to replicate the study and maintain the goggle groups for longer than the eight weeks in Gansel's study. Although the goggles may have an effect on peripheral vision, it is not known whether this may have affected the outcome.

Dailey et al. (7) and Church (4) used a mechanical aid in contrast to a conventional spot bowling approach and found no significant differences between the groups after training. Interestingly, Dailey and his colleagues found a significant difference in favor of the conventional group during training, implying that in this case the mechanical aid was a hindrance rather than a help. The mechanical aid was such that it tended to occlude somewhat the learner's view of the alley and pins.

Formulation of motor plan and response emission. The plan is the particular movement pattern, based upon an analysis of the relevant stimuli, with the highest probability of goal attainment. The role of the teacher is to aid the learner in formulating successful plans by showing her the relationship between the relevant stimuli and the movement she performs, and by providing instruction in those movement configurations that seem to be most successful.

With regard to the second of these roles, it is possible for the teacher to influence the learner's plan by the subtle process of

"shaping" rather than by foisting a particular plan upon her (32, 33). It is necessary, therefore, for the teacher to be aware of which movement patterns are more likely to provide success for particular learners and selectively reinforce responses which are successive approximations of those. Many of the studies reviewed have been related to the types of motor plans that seem to have the highest probability of success with beginners.

One frequently asked question is, "Shall I teach the hook ball or the straight ball to my beginners?" We can turn to some research which may provide guidance in this decision. Stiff (38), who considered spare success as related to type of delivery, found no difference in spare success for the hook, straight, curve or backup ball. On the other hand, Klatt (17) found that superior bowlers tend to use the hook ball most frequently. Bennett (1), McIntyre (24) and Stofko (39) compared the effectiveness of the straight ball and the hook ball. McIntyre found the straight ball to be better in the very early stages of learning but the superiority for beginners disappeared and at the end there was no significant difference. Stofko found that significant improvement over 44 games was made only with the hook ball. Bennett found no differences over 20 games. Summers (40) also found no significant difference but concluded that since the hook appears to be the preferred method for championship and advanced bowlers it should be taught immediately to beginners.

Two research studies compared the three- and four-step approach (3, 37). Both found no significant differences, leading to the reserved conclusion, pending further study, that perhaps the approach is a matter of personal style and that both should be presented. It should be noted, however, that the studies were conducted over a rather short period of time.

Church (4) looked at general instruction as compared with filmstrips and found no difference. Hall (12) considered whole presentation vs. part presentation and Cronan (6) looked at the somewhat related area of lead-up games and drills compared with regulation games; both found no significant differences. Cronan also looked at a group which met three times per week as opposed to a group which met twice per week and found an initial significant difference in favor of the group which met twice weekly. Kahn (16) and Robertson (30) varied the time pattern of practice and found no significant differences. Studies comparing problem-solving techniques or programmed instruction to traditional methods found no significant differences (2, 20, 34, 41).

To summarize the information presented to this point, it seems fair to say that given the limitations imposed by the short-term nature of most of the studies and the fact that most were short due to limitations imposed by the school term, it appears that it is more

important to structure the learner's perception than to worry about the type of motor plan that you present or the way that you present it. The one notable exception seems to be with regard to the hook ball vs. the straight ball, which seems resolvable in favor of the hook.

Feedback and decision making. During and after the execution of the delivery the learner receives information related to both the motor plan and the effect of the plan upon the environment (pins and alley). During the delivery the learner is aware of the plan executed. It can be executed as it was originally planned or in some other way. If it is executed as planned then the learner was able to translate the movement idea into action. If not, then something interfered. One of the teacher's roles in this stage is to provide feedback to the learner about the movement plan. Polvino (28) looked at feedback with reference to the motor plan via videotape. There were not significant differences among groups using videotape and groups not using it. Ochs (27) and Hoff (14) presented similar findings. Kraft (19), however, who combined teacher feedback with the videotape presentation of feedback, found significant differences when the combination of teacher and videotape feedback was compared to either one used separately. This positive effect of adding cueing to structure the learner's viewing of the videotape is in keeping with suggestions made by Rothstein (32).

The problem of evaluating goal attainment has also been considered (13, 15, 22, 23, 36). Regardless of the method of evaluation the teacher uses, whether it be high score, high game, first ball season average, comparison with bowling norms, or some standardized test, the learner must be guided in a way which maximizes the possibility of relating what she did, *her motor plan*, to the configuration of environmental stimuli (26).

Though there is insufficient evidence specifically regarding bowling we may conclude from other applicable evidence that feedback properly used by the teacher is a crucial factor influencing the learning and/or performance of the individual. It is through the provision for knowledge of results or knowledge of performance that the teacher fulfills one of her vital functions as an instructor. Without appropriate information, provided at the proper time, it is unlikely that the learner will reach her potential.

The crucial nature of feedback may be clarified if one considers that it is needed by the learner to assess the "goodness" of her performance. The learner must make a decision, using feedback, to change the goal, and/or the plan, and/or selective attention; or to repeat the performance as exactly as possible.

In summary, improvement in bowling is dependent upon the learner's ability to use information from selective attention to formulate a high success probability motor plan (preferably similar

to a hook), emit it, and then, using feedback about the process (plan) and the product (goal attainment), assess the interactive goodness of both and decide what to do for the next trial. The teacher has a definite and crucial role, as has been illustrated, in the successful completion of each step leading to goal attainment.

References

1. Bennett, M. J. The effect of three instructional approaches to delivery on the development of accuracy in bowling of high school girls. M.S. in Physical Education, University of Washington, 1969.
2. Bierscheid, Robert L. A study of the effects of utilizing three methods of programmed instruction on selected motor skills in bowling and the knowledge of bowling etiquette and safety. Ed.M. in Physical Education, Temple University, 1969.
3. Bladen, J.F. The effect of the three-step approach and the four-step approach on bowling ability. M.A. in Physical Education, Texas Women's University, 1960.
4. Church, R.K. The effect of different teaching methods and spot of aim techniques on bowling achievement of college men. P.E.D., Indiana University, 1963.
5. Cox, G.A. The effectiveness of instruction using a visual electronic unit in the development of beginning bowling skill of college women. M.S. in Physical Education, University of Washington, 1963.
6. Cronan, J.C. A comparison of two methods of teaching and scheduling beginning bowling. M.S. in Physical Education, Louisiana State University, 1968.
7. Dailey, L., Wessel, J., and Nelson, Richard C. Effectiveness of a bowling aid to university bowling instruction. *Research Quarterly* 34:136-143, 1963.
8. Fitts, P. Skill learning, In *Categories of Human Learning*, edited by A. Melton. New York: Academic Press, 1964.
9. Fleischman, E. A. and Hempel, W. Factorial analysis of complex psychomotor performance and related skills. *Journal of Applied Psychology* 40:96-104, 1956.
10. Gansel, A.K. The effect of limited visibility on teaching beginning women bowlers spot bowl. M.A. in Physical Education, University of Iowa, 1970.
11. Gentile, A.M. A working model of skill acquisition with application to teaching. *Quest* 17:3-23, Jan. 1972.
12. Hall, M.F. A study of two methods of teaching bowling to college women of high and low motor ability. Ph.D., University of Iowa, 1958.

13. Hardin, R.L. The construction of an information examination for college students enrolled in bowling classes. M.S. in Health and Physical Education, Texas Woman's University, 1961.
14. Hoff, D. J. A comparison between videotape and conventional method of instruction in bowling. Ed.D., University of Utah, 1969.
15. Johnson, N.J. Tests of achievement in bowling for beginning girl bowlers. M.S. in Physical Education, University of Colorado, 1962.
16. Kahn J.S. A comparison of various patterns of practice in bowling achievement. M.S. in Physical Education, University of California, 1959.
17. Klatt, L.A. A comparison of factors related to force and direction of force in the performance of above average and superior women bowlers. M.S. in Physical Education, University of Wisconsin, 1965.
18. Knapp, B. *Skill in Sport*. London: Routledge & Kagen Paul, 1963.
19. Kraft, R.E. The effects of teacher feedback upon motor skill utilizing videotape recordings. Ed.D., Syracuse University, 1972.
20. LaPlante, M. A study of the problem solving method of teaching bowling. M.S. in Physical Education, University of North Carolina, 1965.
21. Lindquist, E. The GSPS model: A program for skill acquisition. *Quest* 17:Jan. 1972.
22. Martin, J. Bowling norms for college men and women. *Research Quarterly* 31:113-116, 1960.
23. Martin, J. and Keogh, J. Bowling norms for college students in elective physical education classes. *Research Quarterly* 35:325-327, 1964.
24. McIntyre, M.H. A comparison of selected skill techniques in bowling. Ph.D. in Physical Education, University of Iowa, 1963.
25. Miller, G.A.; Galanter, E.; and Pribram, K. *Plans and the Structure of Behavior*. New York: Holt, Rinehart & Winston, 1960.
26. Miller, R.B. Handbook on training and training equipment design. In *Principles of Training*, edited by D.H. Holding. London: Pergamon Press, 1965.
27. Ochs, K. The effect of videotape replay as an instructional aid in beginning bowling classes. Ed.D., University of Alabama, 1970.
28. Polvino, G.J. The relative effectiveness of two methods of videotape analysis in learning a selected sport skill. Ph.D., University of Iowa, 1971.

29. Robb, M. Task analysis: A consideration for teachers of skill. *Research Quarterly* 43: 362-373, 1972.
30. Robertson, J. The effect of varying short time intervals between repetitions upon performance of a motor skill. Ph.D., University of Southern California, 1969.
31. Roney, P. Speed and accuracy—Both. In *DGWS Bowling Guide*. Washington, DC: AAHPER, 1956.
32. Rothstein, A. The role of feedback in bowling. In *DGWS Bowling Guide*. Washington, DC: AAHPER, 1973.
33. Rushall, B. S. and Seidentop, D. *The Development and Control of Behavior in Sport and Physical Education*. Philadelphia: Lea & Febiger, 1972.
34. Smith, M.E. A study of two methods of teaching bowling to beginning college women. M.Ed. in Physical Education, University of North Carolina, 1966.
35. Snyder, H. *Contemporary Educational Psychology*. New York: John Wiley & Sons, 1968.
36. Soloday, D. The reliabilities and interrelationships of various measures used to evaluate bowling success. M.S. in Physical Education, University of Colorado, 1958.
37. Songster, J.W. The relative effectiveness of teaching the three and four-step approaches to beginning bowlers. M.S. in Physical Education, Washington State University, 1961.
38. Stiff, D.M. Relationship between type of delivery and spare success in bowling. M.S. in Physical Education. Southern Illinois University, 1971.
39. Stofko, J.M. A comparison of hook and straight ball bowling for beginning bowlers. M.Ed. in Physical Education, Pennsylvania State University, 1969.
40. Summers, D. Effect of variations of delivery and aim on bowling achievement of college women. *Research Quarterly* 28: 77-84, 1957.
41. Tredway, R.D. A study comparing the effects of three instructional methods in teaching bowling. Ed.D., West Virginia University, 1972.
42. Whiting, H.T.A. *Acquiring Ball Skill*. Philadelphia: Lea & Febiger, 1969.

Bowling Research

Revised by KATHLEEN BLACK
Central State University
Edmond, Oklahoma

- Buck, Margaret. A manual for bowlers. Master's thesis, State University of Iowa, n.d.
- Bowling survey. *Recreation Management* 2:10-11, April 1959.
- Burton, E.C. State and trait anxiety, achievement motivation and skill attainment in college women; Beginning bowling and beginning riflery. *Research Quarterly* 42:139-144, May 1971.
- Church, Kenneth R. The effect of different teaching methods and spot-of-aim techniques on bowling achievement of college men. Doctoral dissertation, Indiana University, 1963.
- Cox, Gay Anne. The effectiveness of instruction using visual electronic unit in the development of beginning skills of college women. Master's thesis, University of Washington, 1963.
- Curtis, Joyce Mae. The effect of four methods of spate conversion involving variation in point of aim on bowling achievement of college women. Doctoral dissertation, Indiana University, 1970.
- Daily, L. et al. Effectiveness of a bowling aid to university bowling instruction. *Research Quarterly* 34:136-143, May 1963.
- Fox, Margaret G. Lateral dominance in the teaching of bowling. *Research Quarterly* 28:327, Dec. 1957.
- Greenlee, Geraldine A. The relationship of selected measures of strength, balance, and kinesthesia to bowling performance. Master's thesis, State University of Iowa, 1958.
- Hennis, Gail M. Construction of knowledge tests in selected physical education activities for college women. *Research Quarterly* 27:301-309, Oct. 1956.
- Hoft, Donald Joseph. A comparison between videotape and a conventional method of instruction in bowling. Doctoral dissertation, University of Utah, 1969.
- Hyde, Patricia L. A comparison of the effectiveness of the thumb-up and V hand positions for beginning bowlers. Master's thesis, University of Wisconsin, n.d.
- Klatt, Lois A. A comparison of the performances of above-average and superior women bowlers. In *DGWS Bowling-Fencing-Golf Guide 1967-69*, 13-16. Washington, DC: AAHPER, 1967.
- Ley, Katherine L. Construction objective test items to measure high school levels of achievement in selected physical education activities. Microcarded doctoral dissertation, University of Iowa, 1960.

- Liba, M. Trend test as a preliminary to reliability estimation. *Research Quarterly* 33:245-248, May 1962.
- Lockhart, Aileen. The value of the motion picture as an instructional device in learning a motor skill. *Research Quarterly* 15:181, May, 1944.
- Martin, Joan L. Bowling norms for college men and women. *Research Quarterly* 31:113-116, March 1960.
- Martin, Joan and Jack Keough. Bowling norms for college students in elective physical education classes. *Research Quarterly* 35:325-327, Oct. 1964.
- Meyer, Frank Albert. A study comparing the mechanical principles of movement approach with a traditional approach in teaching bowling. Doctoral dissertation, West Virginia University, 1970.
- Mohr, Dorothy R. The contributions of physical activity to skill learning. *Research Quarterly* 31:321, May 1960.
- Ochs, Keith M. The effect of video tape replay as an instructional aid in beginning bowling classes. University of Alabama, 1970.
- Olson, Janice K. and Liba, Marie R. A device for evaluating spot bowling ability. *Research Quarterly* 38:193-201, May 1967.
- Phillips, Marjorie and Summers, Dean. Bowling norms and learning curves for college women. *Research Quarterly* 21:377-385, Dec. 1950.
- Showers, Norman E. A study of certain factors affecting bowling performance. Master's thesis, University of Southern California, 1951.
- Showers, Norman E. and Gerber, Richard. A statistical analysis of men and women league bowling scores. *Illinois Journal of Health, Physical Education and Recreation*, p. 6, Fall 1969. Also published in the *73rd Annual Proceedings of the National College Physical Education Association for Men*, Dec. 1969.
- Showers, Robert G. A study of certain factors affecting bowling performance of female bowlers. Master's thesis, University of Southern California, 1953.
- Singer, R.N. and Beaver, R. Bowling and the warm-up effect. *Research Quarterly* 40:372-375, May 1969.
- Smoll, F. L. Effects of precision of information feedback upon acquisition of a motor skill. *Research Quarterly* 43:489-493, Dec. 1972.
- Summers, Dean. The effect of variations of type delivery and type aim on bowling achievement of college women. *Research Quarterly* 28:77, March 1957.
- Thompson, Shirley. The relationship of spare set-up in bowling to first ball speed. In *DGWS Bowling-Fencing-Golf Guide, 1954-56*, pp. 24-26. Washington, DC: AAHPER, 1954.
- Walters, C. Etta. A perceptual approach to the teaching of bowling. *Perceptual and Motor Skills Research Exchange* 4:75-79, 1952.

_____. A sociometric study of motivated and non-motivated bowling groups. *Research Quarterly* 26:107-112, March 1955.

_____. Motor ability and educability factors of high and low scoring beginning bowlers. *Research Quarterly* 30:94-100, March 1959.

Webster, Randolph W. Psychological and pedagogical factors involved in motor skill performance as exemplified in bowling. *Research Quarterly* 11:42, 1940.

Bowling Bibliography

Revised by SONJA ROACH
Lewis & Clark High School
Spokane, Washington

- American Association for Health, Physical Education, and Recreation. *Ideas for Bowling Instruction*. Washington, DC: the Association, 1970.
- _____. *Gym-Bowl Teacher's Manual*. Washington, DC: the Association, 1965.
- American Junior Bowling Congress. *Playing Rules, 1973-1974 Season*. Milwaukee, WI: the Congress, 1973.
- Annarino, Anthony A. *Individualized Instruction Set for Physical Education: Bowling*. Lafayette, IN: Purdue University, 1973.
- Armbruster, David A.; Irwin, Leslie W.; and Musker, Frank F. Bowling. In *Basic Skills in Sports*, 4th ed. St. Louis: C. V. Mosby Co., 1967.
- Bellisimo, Lou. *The Bowler's Manual*. 2d ed. Englewood Cliffs, NJ: Prentice-Hall, 1969.
- Broer, Marion R. et al. *Individual Sports for Women*. 5th ed. Philadelphia: W. B. Saunders Co., 1971.
- Chapin, Kim. Obviously it's a leftist plot. *Sports Illustrated* 34:24-31, May 1971.
- Casady, Donald and Liba, Marie. *Beginning Bowling*. 2d ed. Belmont, CA: Wadsworth Publishing Co., 1968.
- Decker, D. and Sutton, W.E. Include bowling in your activity program. *School Activities* 38:12-16, March 1967.
- Falcaro, Joe and Goodman, Murray. *Bowling for All*. Rev. ed. New York: Ronald Press Co., 1966.
- Levine, Sam. Who are you going to tell it to? *The Woman Bowler* 33: Oct. 1969.
- Martin, Joan. *Bowling*. 2d ed. Dubuque, IA: William C. Brown Co., 1971.
- McCue, Betty. *Physical Education Activities for Women*. Riverside, NJ: Macmillan, 1969.
- Miller, Oral O. Blind Bowling. *Journal of Health, Physical Education, Recreation* 42:59-60, April 1971.
- National Bowling Council. *The Guide To Teaching Bowling*. Washington, DC: the Council, 1967.
- _____. *League Secretary's Handbook*. Model Constitution and Officers' Duties. Washington DC: the Council, n.d.
- Schunk, Carol. *Bowling*. Philadelphia, W. B. Saunders Co., 1970.

Taylor, D. *The Secrets of Bowling Strikes!* New York: A. S. Barnes & Co., 1960.

Women's International Bowling Congress. *WIBC Bowling Average Calculator*. Greendale, WI: the Congress, 1970.

Magazines

Popular Bowling. Bimonthly. Joan Publishing Company, Dunellen, NJ.

Prep Pin Patter. Monthly. 1913 W. 103rd St., Chicago, IL. 60643.

Bowling Visual Aids

Revised by JOYCE CURTIS
Abilene Christian College
Abilene, Texas

FILMS*

- America Bowls at the ABC.* 16mm, 15 min., sound, b&w. Free loan (3). Presents the 1960 ABC Tournament. Includes many scenes of tournament play featuring Joe Wilman, Buzz Fazio, Joe Norris, Buddy Bomar and Don Carter.
- Bowling.* Set of four filmstrips, color. Sale - sound \$42.50, silent \$37.00 (2). Currently being revised. Unit I: The sport - history, equipment selection, etiquette. Unit II: Delivery - grip, arm-swing, steps, and release. Unit III: Aiming - how to use "range finder" system for spot bowling; covers hook, straight, and back-up ball. Unit IV: Scoring - explained in simple, easy-to-understand terms.
- Bowling.* 16mm, 15 min., sound, color. Free loan (3). Entertainment film, showing scenes of Don Ellis performing trick shots in bowling.
- Bowling Fever.* 16mm, 12 min., sound, b&w. Free loan (3). Presents bowling techniques and the pleasures to be derived from bowling.
- Bowling Fundamentals.* 16mm, 15 min., b&w. Rental \$5.00 (4). Problems of beginner with progress through instruction in grasp, stance, approach, release of ball, and follow through.
- Decision.* 16mm, 20 min., sound, color. Free loan (3). Story of how a woman's discovery of bowling developed new friends and interests.
- Duckpin Bowling.* 16mm, 20 min., sound, b&w. Free loan (3). An interesting film about Duckpin Bowling - everybody's game. History of bowling and basic instructions on how to enjoy the sport.
- Fun on the Lanes: Young America Goes Bowling.* 16mm, 17 min., sound, b&w. Free loan (1). 1964 AJBC league in action. Shows formation of league, election of officers, league play, season-ending awards banquets.
- King of the Pins.* 16mm, 10 min., sound, b&w. Free loan (3). Shows Joe Wilman; includes slapstick comedy by Buddy Hackett, but is instructional as well as entertaining.
- Let's Roll with the Champions.* 16mm, 15 min., sound, b&w. Free loan (3). Features St. Louis Budweiser bowling team which

*Numbers in parentheses refer to film distributors listed on p.

demonstrates basic fundamentals of bowling and performs precision trick shots.

New Horizons. 16mm, 20 min., sound, color. Free loan (3). Informative film about how a bowling ball and pin are made. A trip to one of the Brunswick factories shows the making and operation of the Automatic Pinsetter.

On The Spot. 16mm, 12½ min., sound. Free loan (1,3,5). The importance of choosing a target on the lane over which to roll the ball is demonstrated by Dick Weber, Dave Davis and Judy Cook. Several basic spare pickups are explained. Film utilizes slow motion, stop action, overprinted diagrams and split screen presentations.

Tell It to the Girls. 16mm, 22 min., sound. Free loan (5). Describes WIBC's services as told by a typical league member.

Tenpin Showcase. 16mm, 18½ min., sound, b&w. Free loan (1). Includes highlights of ABC Tournament, college champions, and Master's Tournament.

To The Foul Line. 16mm, 12½ min., sound. Free loan (1,3,5). Dick Weber demonstrates arm and backswing, the walk to the foul line, and proper ball release. Judy Cook shows how to do it, feminine style. Film utilizes slow motion, stop action, overprinted diagrams and split screen presentations.

Top Star Bowling. 16mm, 50 min., sound, b&w. Free loan (3). Brunswick has made available 49 filmed matches from the current Top Star Bowling Television Series. Programs: 7 - Joy Abel vs. Marion Ladewig; 20 - Shirley Garms vs. LaVerne Carter; 33 - Judy Audsley vs. Marion Ladewig; and 46 - Joy Abel vs. LaVerne Carter.

Who's Keeping Score. 16mm, 12 min., sound, color. Free loan (5). An interesting and informative film about the latest innovations in bowling - the Brunswick Automatic Scorer completely eliminates manual scorekeeping and adds more fun and excitement to the game through its computerized system.

FILM DISTRIBUTORS

- (1) American Bowling Congress, Film Library, 1572 E. Capitol Dr., Milwaukee, WI 53211.
- (2) The Athletic Institute, 805 Merchandise Mart, Chicago, IL 60654.
- (3) Brunswick Corporation, Bowling Division Film Library, Don Hill, 200 S. Chester St., Park Ridge, IL 60068.
- (4) ROA's Films, 1696 N. Astor St., Milwaukee, WI 53202.
- (5) Women's International Bowling Congress, Film Department, 5301 S. 76th St., Greendale, WI 53129.

COLLEGIATE DIVISION OF THE WIBC

The Collegiate Division of the Women's International Bowling Congress has been in operation on college campuses since September, 1966. In its first season, 35 leagues were sanctioned, and 1,003 WIBC memberships were issued to college women. For information about this popular program, request a Collegiate Division information packet from:

Women's International Bowling Congress
Collegiate Division
5301 South 76th Street
Greendale, Wisconsin 53129

Membership is open to all women students of colleges, universities, and junior colleges who meet their school athletic participation requirements. Membership fees are nominal. Amateur competitive status is mandatory for membership and participation in ABC or WIBC National Collegiate Division Tournaments. Its eligibility rule is reprinted below.

ELIGIBILITY AND AMATEUR STANDING RULE COLLEGIATE DIVISION OF ABC/WIBC

1. *General Eligibility--Intracollegiate Competition*
Membership shall be available to all students who are enrolled in any institution of higher education and who meet the requirements of the institution for such participation.
2. *Specific Eligibility--Intercollegiate Competition*
Eligibility shall be determined by the institution, conference, or sponsoring collegiate association regulations for intercollegiate athletics.
3. *National Collegiate Division Tournament Eligibility*
To maintain amateur status for such a tournament a bowler must not—
 - a. Bowl, substitute, or pace in any league or tournament or any other bowling competition where money or merchandise prizes are listed as awards. (*Note: Individual intercollegiate athletic awards and similar mementos shall be limited to those approved and administered by the institution or its conference or sponsoring collegiate association in keeping with traditional college requirements as to what constitutes an acceptable award.*)
 - b. Accept personal assistance from a professional games organization or a commercial organization which clearly implies endorsement of any product.

- c. Coach for money.
 - d. Accept pay for a radio or television appearance other than expense that might be reasonably incurred in his travel to and from the studio.
 - e. Compete for and/or accept scholarships awarded on bowling skills only.
4. Any violation of general playing rules that would result in suspension from the adult organization will result in loss of collegiate division membership. (*Note: Bowlers under suspension or ineligible for WIBC and ABC membership are ineligible for membership in the Collegiate Division.*)
 5. All awards for leagues and tournaments sanctioned by the Collegiate Division must conform to amateur standards as established by the Collegiate Division.

NATIONAL INTERCOLLEGIATE POSTAL TENPIN TOURNAMENT

The Executive Council of NAGWS has voted to discontinue the National Intercollegiate Postal Tenpin Tournament. The results for 1972-73 and 1973-74 will be printed at a later date in an AAHPER publication.

OFFICIAL DUCKPIN RULES*

TEAM MEMBERSHIP

1. In a five-man team league, a legal team shall consist of five bowlers, four bowlers, and one dummy or three bowlers and two dummies. In a four-man team league two dummies shall be allowed per team. In a three-man team league only one dummy shall be allowed per team. In a two-man team, or doubles league, one dummy may be allowed, at the option of the league only. (NOTE - The members of the team may be REGULAR members of that team, ALTERNATE members of that team or ALTERNATE MEMBERS PROVIDED BY THE LEAGUE. An alternate bowler is a person bowling in the place of a regular team member. A substitute bowler is a person finishing a game that has already been started by a regular or alternate bowler. A dummy shall be considered as a regular member of the team but not as a bowler. Any and all bowlers who are eligible to bowl with a team at any time are eligible bowlers of that team and any, or all, such bowlers may be used to constitute an eligible team.)

In a non-handicap mixed league where a male member of the team is absent, or is withdrawn from the line-up, he must be replaced with another male bowler or with a male dummy score. Likewise, if a female member of the team is absent, or is withdrawn from the line-up, she must be replaced with another female bowler or with a female dummy score. (NOTE - In handicap mixed leagues the use of male replacements for female bowlers or female replacements for male bowlers is allowed with the difference created in the handicap automatically taking care of such changes.)

In a non-handicap "limited average" mixed league a male bowler may replace a female bowler or a female may replace a male bowler.

PLAYER SUBSTITUTION

2. The captain of any team may withdraw any player, or dummy, in any game and substitute any eligible player, or a dummy, at any time, but the player withdrawn shall not be eligible to again roll in the game from which he was withdrawn. The score shall be credited to the bowler beginning the game or completing a game started with a dummy or blind.

If a player withdraws and no substitution is made, the player's score for the game is the total of his actual score plus the dummy score of the league for each of the remaining frames of the game.

*Excerpts from rules reprinted with permission of National Duckpin Bowling Congress.

No recognition for any awards by the National Duckpin Bowling Congress can be given for any individual score in which a substitute (meaning a bowler substituting for another bowler who has already started the game) is involved.

DUMMY SCORE AS PINFALL

6. The dummy score, as regularly established by league rule, shall count as pinfall in every instance for the team being obliged to use such dummy score, and also for league awards if the league so determines.

PLAYING LANES

7. The lanes immediately adjoining each other shall be used in all games. The contesting teams shall successively and in regular order roll one frame on one lane, and for the next frame alternate and use the other lane, so alternating each frame until the game is completed. The teams must start the following game on the same lanes on which the tenth frame of the previous game was rolled.

Except that, at the option of a league, two frames may be rolled consecutively on one lane by each bowler on the team before alternating lanes. Where this procedure is followed the teams will start each succeeding game on the opposite lane from which the tenth frame of the previous game was rolled.

This exception shall apply to leagues only, and then only at the option of the league.

The captain of the visiting team shall be allowed choice of the lanes.

MACHINE BREAKDOWN

8. When one machine on a pair of lanes using automatic pinsetting machines "breaks down" during a league match or in any tournament and another pair of lanes is not available for use, then the bowlers "SHALL" continue rolling on one lane until the "broken down" machine is again in operation, at which time the bowlers shall resume bowling according to normal, regular procedure. During the period that the bowlers are bowling on one lane, the bowlers shall alternate in proper order as if bowling on two lanes, i.e., the leadoff bowler on one team being followed by the leadoff bowler on the other team, then the second bowler on the one team, followed by the second bowler on the other team, etc.

If a machine breakdown occurs during a league match or in any tournament necessitating moving the bowlers to another pair of lanes, the bowlers will change lanes and continue the game in the frame then being rolled, and shall remain on these lanes until the

completion of their scheduled match, unless there is a breakdown on these lanes.

This rule may be enforced to cover any number of breakdowns.

BOWLING PROCEDURE

9. The games shall consist of ten frames on each side. Three balls shall be allowed in each frame, to be rolled one at a time. All strikes and spares made in the tenth frame or any extra frame, shall be rolled off before leaving the lane, and on the same lane made. A strike or spare made on the roll-off of one made in tenth frame shall not be included in totals for season.

No pins shall be conceded. All pinfall to be accredited to a bowler must have been knocked down because of and by action of a legally delivered ball.

No game can be started until the preceding game is finished; i.e. the leadoff bowler shall not start the succeeding game until the anchor man of the opposing team has completed rolling the preceding game.

WHO SHALL ROLL FIRST

10. Bowlers should bowl as soon as the pins have been set up on their lanes. In the event of a controversy as to who shall bowl first in the last box of a game the bowler on the right shall bowl first, completing the box.

STARTING TIME FOR LEAGUE PLAY

11. Play shall begin at the starting time fixed by the league (this means the exact starting time -- no grace period allowed). Should only three or four players be ready at that time, the team shall start with the players that are present and should the other players appear **AT ANY TIME** during the game, they may be added and begin play in the frame then being rolled by the team. Dummy scores, as fixed by the league, are to be used for all prior frames for such tardy players. No bowler will be allowed to catch up any frame that has been missed.

If there is not a legal team present at the starting time fixed by the rules of the league, the game or games shall be declared forfeited. All games must be rolled by the team claiming the forfeit. Forfeits cannot be claimed the first 4 weeks of a league schedule when a league has an odd number of teams and organizational work is being done to round out the league; postponements or make-up matches must be allowed in this case. A team can forfeit only one game at a time.

Those players who are present at the start of the game may roll for their individual average and score but the opposing team must

play its legal team. The scores of the players rolling for their individual averages shall NOT count as pinfall for the forfeiting team, and the forfeiting team shall not be credited with dummy scores as pinfall for those bowlers who are absent.

TIE GAME

14. In the event of a tie game, first or second game, each bowler will use for the roll-off the first frame of the succeeding game, and the highest total pinfall for the first frame of the succeeding game shall decide the winner of the previous tie game, and in the event that the total of the first frame for each team ends in a tie, bowlers will continue in the same manner for the next frame, and so on until the tie is broken. However, should the tie occur in the final game the teams shall change lanes for the next frame, and if the tie remains unbroken, teams shall continue to alternate lanes until the tie is broken.

In case of a tie game where a dummy is being used, the team using the dummy shall be allowed one-tenth of the dummy score for each succeeding box after the tenth until the tie shall be broken, fractions of over one-half to count as one pin, fractions of one-half and under not to count.

Pinfall in any frame after the tenth, to determine the winner of a tie game, shall not count as pinfall in the records.

Failure of team members to remain on the lanes until the totals of the two competing teams are computed shall, in a tie game, require such teams to bowl the extra boxes needed to break the tie with only those members then present. In such instances the scores of those competing, plus the regular dummy score of the league for the absent player or players, shall be used. If either team fails to have a legal number of bowlers (3 bowlers and 2 dummies, 4 bowlers and 1 dummy or 5 bowlers) remaining, the team that does have such legal number of bowlers remaining shall be declared as the winner of the tie game by forfeit.

TEAMS BOWLING ALONE

17. When any game is declared forfeited under the rules, the team present and not at fault must bowl any and all games to be bowled as though they were actually contested and the scores and averages shall be credited and recorded.

Any team which rolls a league match, not scheduled against another team, or where the opposing team does not appear, unless postponement has previously been arranged for, shall receive credit for three games won by forfeit. (A team cannot lose a forfeit match.)

Such forfeits shall mean a win of three games, or four points, whichever scoring system is being used by the league. No team shall roll against any previously determined scores and/or team averages.

FINAL POSITIONS OF TEAMS IN LEAGUE STANDING

18. Where teams are tied in the number of games won and lost, whether in the first or second half of a split schedule, or in a full season's schedule, the final positions of such teams in the league standings shall be determined by total pinfall, EXCEPT, where there is a specific league rule to the contrary, then the league rule shall apply.

FOUL LINE JUDGE

19. In all events or league games under the jurisdiction of the Congress an official foul line judge or an approved automatic foul detecting device shall be used.

In the event an automatic foul detecting device fails to operate properly the opposing team Captains shall be responsible for calling all fouls until the device has been satisfactorily repaired and operating.

The foul line judge shall take special care to declare all fouls immediately upon their being committed, unasked, and in a distinct, audible voice. The foul line judge's decision as to fouls shall be final. No appeal shall be allowed from the decision of the foul line judge except where it is apparent that a foul may have been called on the wrong player. Any player who shall continue to dispute the decisions of a foul line judge may be suspended from further participation in the match in question by the foul line judge.

CHANGING FOUL LINE JUDGE

20. No foul line judge shall be changed during a league game, or an advertised match game, without the consent of a majority of the team captains involved.

FOULS

21. A foul is committed when any part of the bowler's person or clothing encroaches upon or goes beyond the foul line and touches any part of any lane equipment or any part of the building which is beyond the foul line during or after the act of delivery, whether or not the ball is released. A ball is in play and a foul may be called after a delivery has been made and until the same, or another, player is on the approach in position to make a succeeding delivery. *

If, in the act of delivering the ball any object falls from the bowler's clothing or person and breaks the light beam so as to

register a foul, a foul shall be called and so recorded. However, if any such object falls onto the lane beyond the foul line and the light beam is not broken, no foul shall be called.

No balls or pins will be allowed in the gutter or on the lane before rolling. Any ball delivered before deadwood is removed or while pins or balls are in the gutter or on the lane shall be deemed a foul and handled accordingly.

No appeal shall be allowed when an approved automatic foul detecting device registers a foul except when it can be proven that the device was not operating properly. (NOTE - A player may at any time cross over the foul line for the purpose of removing an obstruction from the lane, etc., upon notification to the foul line judge, opposing team captain or member of the opposing team or tournament official of his desire to do so.)

All fouls shall be handled in accordance with the following rules: When a foul occurs on the first ball, all pins shall be respotted, that ball and the pins knocked down by that ball are lost and the bowler has two balls remaining in that box. When a foul occurs on the second ball, pins knocked down, if any, shall be counted as knocked down by the third ball, the second ball is lost and the bowler is through for that box, i.e., if the bowler spared on the second ball and fouled, it is an automatic 10 box and the bowler is through for the box. When a foul occurs on the third ball, both the ball and the pins knocked down by that ball are lost and the bowler is through for that box.

Should a bowler make a strike in the 10th box or any extra box and foul on the first roll-off ball, that ball shall be lost, the pins knocked down by that ball counted as though knocked down by the second roll-off ball, and the bowler is through for that box. Should a foul occur on the second roll-off ball, both the ball and the pins knocked down by that ball are lost.

Should a bowler make a spare in the 10th box or any extra box and foul on the roll-off ball, both the ball and the pins knocked down by that ball shall be lost.

APPARENT AND VISIBLE FOUL

22. If a player commits a foul which is apparent to a tournament official, or to an official scorer, or to both captains, or to one or more members of each of the opposing teams competing in a league or tournament contest on the same pair of lanes where the foul is committed and the foul judge through negligence fails to see it committed or the automatic foul detecting device fails to record it, a foul shall nevertheless be declared and so recorded.

DELIBERATE FOUL

23. If it is apparent that a player deliberately fouls, to benefit by the calling of such foul, he shall be immediately disqualified from further participation in the match or event then in play.

Where an automatic pinsetting machine is in use and it is apparent that a bowler deliberately steps on or pushes the pedal or button that actuates the deadwood removal mechanism of the machine to benefit by such action, then the act of the bowler shall be considered as a deliberate foul, recorded as such and bearing the same penalty as outlined in the foregoing paragraph.

In league play any eligible substitute may immediately replace such disqualified bowler, beginning with the box following the one in which the bowler was disqualified, and shall be allowed only the pins knocked down prior to and including the box and delivery of the ball on which the apparent deliberate foul was made.

(NOTE - The above foul rules shall be used for both manual and automatic machine pinsetting.)

RESPOTTING PINS

24. Should any ball delivered leave the lane **BEFORE** reaching the pins, it shall be declared a "gutter ball" and the pins, if any, knocked down by such ball shall not count and **MUST** be respotted, and/or should any ball rebound from the back cushions, the pins, if any, knocked down by such ball shall not count, but **MUST** be respotted, all such balls to count as balls rolled. Pins knocked down by a pin, or pins, coming out of the pit after the delivery of a "gutter ball" shall not count, but **MUST** be respotted.

Pins knocked down by a pin or pins rebounding from the side boards or back cushions shall count as pins down.

After a fairly delivered ball makes contact with the pins, it cannot thereafter be called a "gutter ball" and all pins knocked down after this contact shall count as pins down, except as outlined above.

Pins knocked down by a pin or pins coming in contact with the pin-boy shall count as pins down, except should the pin-boy deliberately throw a pin or pins on the lane, then the pins knocked down by such action must be respotted. Pins which are knocked down or displaced by any cause, except by a fairly delivered ball, shall in all cases be respotted, except as outlined above.

When an automatic pinsetting machine is activated by inadvertently pushing the wrong button or pedal, all pins then standing shall be respotted and play shall be resumed with no penalty whatsoever.

When a flying pin, or pins, hit the pin table of an automatic pinsetting machine and dislodges a pin, or pins, from the pin table,

any pin, or pins, then standing on the pin deck that may be knocked down by such dislodged pin, or pins, shall be counted as pins down.

DEADWOOD

25. The deadwood must be removed from the lane and gutters after each ball is rolled, mechanically where automatic pinsetting machines are in use. Should any pins fall in removing the deadwood, such pins must be respotted.

When an automatic pinsetting machine is in use and the Number 7 pin and/or the Number 10 pin is knocked down by pins being cleared by the gutter belt such pin and/or pins shall be regarded as down.

Any pin or pins knocked down by the Number 7 pin and/or Number 10 pin shall count as pins down.

Any pin or pins knocked down by a pin or pins, or falling AFTER the bowler steps on or pushes the pedal or button that actuates the deadwood removal mechanism of an automatic pinsetting machine shall not count as pins down, and any pin or pins knocked down or falling after such action on the part of the bowler shall be respotted. Any pin or pins knocked down by the action of the deadwood removal mechanism of the machine shall not count as pins down and shall be respotted. Any pin or pins knocked down or falling AFTER the bowler steps on or pushes the pedal or button that actuates the re-set mechanism of the machine shall not count as pins down.

PIN SPOTTERS STICKING

26. If the pin spotters stick in manual pinsetting, whether on the first, second or third ball, all pins must be respotted and player must re-roll frame.

INTERFERENCE, WRONG LANE, ETC.

27. If any player rolls on the wrong lane or rolls out of turn, or is interfered with by a spectator or otherwise, or if any of the pins he is playing at are knocked down or disturbed in any way before his ball reaches them, or if his ball, after being fairly bowled should come in contact with any obstacle on the lane before reaching the pins, or if he bowled before all the pins were set up, the ball shall immediately be declared "dead" and the player shall roll again, after replacing the pins as they were before such ball was rolled.

However, if one or more bowlers on the other of the two lanes being used also rolls on the wrong lane, then no corrective action shall be taken and the game shall continue as though the lanes actually used were the proper lanes.

RETURNING PIN STANDING UP

28. Should a pin leave the lane, return, and stand up on the lane or should a pin be knocked down and stand up again without leaving the lane, the same shall be declared as not down and the player must roll again at the pin, unless it should be on the third ball.

Provided, however, if a pin returns and stands up on any part of the lane outside of the area covered by the pin deck it shall be counted as a pin down.

PROTESTS

31. All protests as to interpretation of playing rules must be made to the captain of the opposing team, or to an official in charge of an event, whichever the case may be, before the bowler in question comes up to bowl the next ball, or in the case of the last box of a game, immediately after it shall have been bowled. Should the player, or players, be allowed to roll the next ball in regular order before the protest is made, no protest shall be given consideration. The foregoing paragraph shall not, however, prevent the filing of a protest as to the use of ineligible players, violation of a league or tournament rule, etc., or for any violation not immediately apparent as provided for in the foregoing paragraph.

When a legitimate protest of a game or match is made by a team, it must be presented to the governing body of the league, or the team captains, as a whole, if there be no governing body.

If the protest is proved valid, the governing body of the league, or the team Captains as a whole, shall rule and their decision will be final, EXCEPT, where the protest pertains to the use of an ineligible bowler, in which case, the appropriate rule covering the use of an ineligible bowler shall govern.

OFFICIAL SCORER

32. In all sanctioned events or league games there shall be an official scorer, whose duty it shall be to keep a correct record of the game and at the conclusion thereof sign his or her name to the same. The captain of each team shall also sign the score sheet. It is the responsibility of each team Captain to observe that the addition of the scores during, and at the end of, a game, or games, is correct.

Official scorers and league statisticians must correct all mathematical errors discovered at any time, i.e.: individual game totals added incorrectly, wrong handicap used, handicap figured wrongly, etc.

It shall be the responsibility of the league secretary and/or league statistician or official scorer to verify the averages of all bowlers of the league throughout the season. If a bowler's average is found to

put the team over team average limit of the league the secretary and/or league statistician and/or official scorer shall immediately notify the Captain of the team involved. In traveling leagues the management of the establishment involved shall also be notified.

When the correction of a mathematical error by the official scorer or league statistician creates a tie game, such tie game shall be decided prior to the next regularly scheduled league match after the correction is made in accordance with the tie game rule regularly used in that league

In the tenth box you make a strike. As you made a spare in the ninth box you add these 10 pins made on strike to the 10 pins for spare and ninth box score is 141. Your tenth box strike entitles you to two additional balls – to be rolled at once – (a spare in the tenth box entitles you to one additional ball). With these two balls you get a total of 9 pins. These are added to 10 pins made on strike and final score of game will be marked thus:

1	2	3	4	5	6	7	8	9	10	Total
9	28	38	67	87	105	114	121	141	160	160

TENPIN RULES AND REGULATIONS*

SCORING THE GAME

Rule 1. a. A game of American Tenpins shall consist of ten frames. Each player shall bowl two balls in each of the first nine frames except when she shall make a strike. A player who scores a strike or spare in the tenth frame shall deliver three balls.

b. A ball is legally delivered when it leaves the bowler's possession and crosses the foul line into playing territory. A bowling ball must be delivered entirely by manual means and shall not incorporate any device either in the ball or affixed to it which is either detached at time of delivery or is a moving part in the ball during delivery except that any person who has had her hand or major portion thereof amputated may use special equipment to aid in grasping and delivering the ball providing the special equipment is in lieu of the amputee's hand.

c. Where an artificial or medical aid is necessary for grasping and delivering the ball because of any other disability of the hand or arm, permission to use the aid in sanctioned competition may be granted by the WIBC under the following conditions:

1. The aid does not incorporate a mechanical device with moving parts which would impart a force or impetus to the ball.
2. A description or drawing and model of the aid is furnished WIBC.
3. A doctor's certificate describing the disability together with his recommendation that the aid should be used is furnished WIBC.

If permission is not granted, the claimant shall have the right of appeal to the WIBC Legal Committee.

Should permission be granted for the use of an artificial or medical aid, a special identification card (not a WIBC membership card) will be issued the applicant indicating that the aid may be used in sanctioned competition providing the bowler has a current membership card and the use of the aid is specifically authorized by the league or tournament management.

Permission to use the device may be withdrawn for cause.

1	2	3	4	5	6	7	8	9	10
X	X	X	7 2	8 1	F 9	X	7 1	9 -	X X 8
30	57	76	85	95	104	124	143	152	180

*Reprinted with permission of the Women's International Bowling Congress.

NAGWS BOWLING-FENCING GUIDE

STRIKE

Rule 2. A strike is recorded when the player completes a legal delivery and bowls down the full setup of ten pins on the first ball. It is designated by an (x) in the small square in the upper right-hand corner of the frame in which the complete set of ten pins is bowled down with the first ball. The count in each frame where a strike is bowled shall be left open until the player has completed two more deliveries. The maximum count on one strike when followed by a spare is 20.

DOUBLE

Rule 3. When a player bowls two strikes in succession legally delivered, she shall have scored a double. The count in the frame where the first strike was bowled shall be left open until the player has completed her next delivery. When all pins are downed twice in succession, the count for the first strike is 20 plus the number of pins knocked down with the first ball of the third frame following. The maximum count on a double figuring a nine pin count on the first ball following the second strike is 29.

TRIPLE OR TURKEY

Rule 4. In scoring three successive strikes, the player shall be credited with 30 pins in the frame in which the first strike was bowled. Thus, in a game of ten full frames, a player must bowl 12 strikes in succession in order to bowl a game of 300.

SPARE

Rule 5. Any player who bowls down the remaining pins with a legally delivered second ball in any frame has scored a spare. A spare is designated by a (/) in the small square in the upper right-hand corner of the frame in which it is made. The number of pins knocked down after the first delivery before the player bowls for the spare should be marked by a small figure in the upper right corner of the frame. The count in such frame proper is left open until the player shall have bowled her first ball in the next frame following, when the number of pins knocked down by the first ball shall be added to the ten pins represented by her spare, and the total shall be credited therein. When a spare is scored in the tenth frame, a third ball shall be bowled in that frame.

ERROR

Rule 6. A player shall have made an error when she fails to bowl down all ten pins after having completed two deliveries in a given

frame provided the pins left standing after the first ball is bowled do not constitute a split. An error is designated by a (-) in the small square in the upper right-hand corner of the frame in which the error is made. The number of pins knocked down after the first delivery, before the player bowls at the remaining pins, should be marked in the upper right corner of the frame. The count in every frame where an error is committed shall be recorded immediately following the player's second delivery.

SPLIT

Rule 7. A split shall be a setup of pins remaining standing after the first ball has been legally delivered provided the headpin is down, and

- (1) At least one pin is down between two or more pins which remain standing, as for example: 7-9, or 3-10.
- (2) At least one pin is down immediately ahead of two or more pins which remain standing, as for example: 5-6.

A split is designated by a (O) in the small square in the upper right-hand corner of the frame in which the split occurs. The number of pins knocked down on the first delivery should be marked in the upper right-hand corner before the second ball is rolled.

PINFALL - LEGAL

Rule 8. Every ball delivered by the player shall count, unless declared a dead ball. Pins must then be respotted after the cause for declaring such dead ball has been removed.

(1) Pins which are knocked down by another pin or pins rebounding in play from the side partition, rear cushion, or sweep bar when it is at rest on the pin deck prior to sweeping dead wood are counted as pins down.

(2) If, when rolling at a full setup or in order to make a spare, it is discovered immediately after the ball has been delivered that one or more pins are improperly set, although not missing, the ball and resulting pinfall shall be counted. It is each player's responsibility to determine if the setup is correct. She shall insist that any pins incorrectly set be respotted before delivering her ball, otherwise she implies that the setup is satisfactory. No change in the position of any pins which are left standing can be made after a previous delivery in order to make a spare, unless the pin setter has moved or misplaced any pin after the previous delivery and prior to the bowling of the next ball.

(3) Pins which are knocked down by a fair ball, and remain lying on the lane or in the gutters, or which lean so as to touch kickbacks or side partitions, are termed dead wood and counted as pins down, and must be removed before the next ball is bowled.

PINFALL - ILLEGAL

Rule 9. When any of the following incidents occur the ball counts as a ball rolled, but pins knocked down shall not count:

- (1) When pins are knocked down or displaced by a ball which leaves the lane before reaching the pins.
- (2) When a ball rebounds from the rear cushion.
- (3) When pins come in contact with the body, arms or legs of a human pin setter and rebound.
- (4) A standing pin which falls when it is touched by mechanical pinsetting equipment, or when dead wood is removed, or is knocked down by a human pinsetter, shall not count and must be replaced on the pin spot inscribed on the pin deck where it originally stood before delivery of the ball.
- (5) Pins which are bowled off the lane, rebound and remain standing on the lane must be counted as pins standing.
- (6) If in delivering the ball a foul is committed, any pins knocked down by such delivery shall not be counted.

DEAD BALL

Rule 10. A ball shall be declared dead if any of the following occur, in which case such ball shall not count. The pins must be respotted after the cause for declaring such dead ball has been removed and player shall be required to rebowl.

- (a) If, after the player delivers her ball and attention is immediately called to the fact that one or more pins were missing from the setup.
- (b) When a human pin setter removes or interferes with any pin or pins before they stop rolling or before the ball reaches the pins.
- (c) When a player bowls on the wrong lane or out of turn.
- (d) When a player is interfered with by a pin setter, another bowler, spectator, or moving object as the ball is being delivered and before delivery is completed, player must then and there accept the resulting pinfall or demand that pins be respotted.
- (e) When any pins at which she is bowling are moved or knocked down in any manner, as the player is delivering the ball and before the ball reaches the pins.
- (f) When a player's ball comes in contact with any foreign obstacle.

NO PINS MAY BE CONCEDED

Rule 11. No pins may be conceded and only those actually knocked down or moved entirely off the playing surface of the lane as a result

of the legal delivery of the ball by the player may be counted. Every frame must be completed at the time the player is bowling in her regular order.

REPLACEMENT OF PINS

Rule 12. Should a pin be broken or otherwise badly damaged during the game, it shall be replaced at once by another as nearly uniform in weight and condition as possible with the set in use. The league or tournament officials shall in all cases be the judges in the matter of replacement of such pins.

A broken pin does not change the score made by a bowler. The number of pins knocked down are counted, after which the broken pin is replaced.

BOWLING ON WRONG LANE

Rule 13. When only one player or the lead-off on both teams bowl on the wrong lane and the error is discovered before another player has bowled, a dead ball shall be declared and the player(s) required to rebowl on the correct lane(s).

When more than one player on the same team has bowled on the wrong lane, the game shall be completed without adjustment and the next game shall be started on the correctly scheduled lane.

In singles match play competition, where a player normally bowls two frames each time it is her turn to bowl, and a player bowls on the wrong lane for these two frames, a dead ball shall be declared and the player required to rebowl both frames on the correct lanes providing the error is discovered prior to the time the opposing player has made a legal delivery. If the error is not discovered until the opposing player has bowled, the score shall count and the player shall be required to bowl her subsequent frames on the correct lanes.

BALLS - PRIVATE OWNERSHIP

Rule 14. Bowling balls used in the game and marked by their owners are considered private and other participants in the game are prohibited from using the same, unless the owner consents to such use.

Note: A bowling ball shall not be more than 16 pounds in weight after drilling.

FOUL - DEFINITION OF

Rule 15. A foul is committed, with no pinfall being credited to the player although the ball counts as a ball rolled, when a part of the

bowler's person encroaches upon or goes beyond the foul line and touches any part of the lane, equipment or building during or after executing a legal delivery. A ball is in play and a foul may be called after legal delivery has been made and until the same or another player is on the approach in position to make a succeeding delivery.

If the player commits a foul which is apparent to both captains or one or more members of each of the opposing teams competing in a league or tournament on the same pair of lanes where the foul is committed, or to the official scorer or a tournament official, and should the foul judge or umpire through negligence fail to see it committed or an ABC approved automatic foul detecting device fails to record it, a foul shall nevertheless be declared and so recorded.

DELIBERATE FOUL

Rule 16. If a player deliberately fouls to benefit by the calling of a foul, she shall be immediately disqualified from further participation in the series then in play and her place may be taken by another player. The deliberate foul shall not be allowed.

A player who willfully throws her ball into the gutter shall be immediately removed from the game and series and her place may be taken by another player.

If no substitute is available to take the place of the removed player, her team shall be credited only with the pins knocked down up to the time the player was disqualified plus one-tenth of her absentee score for each of the remaining frames in the game.

FOUL COUNTS AS BALL BOWLED

Rule 17. A foul ball shall be recorded as a ball bowled by the player, but any pins bowled down when a foul is committed shall not count. When the player fouls upon delivering the first ball of a frame, all pins knocked down must be respotted, and only those pins knocked down by the second ball may be counted. If she bowls down all the pins with her second ball after fouling with the first, it shall be scored as a spare. When less than ten pins are bowled down on the second ball after fouling on the first, it shall be scored as an error. A player who fouls when delivering her second ball of a frame shall be credited with only those pins bowled down with her first ball, provided no foul was committed when the first ball was delivered. When a bowler fouls during the delivery of her first ball in the tenth frame and bowls down all ten pins with her second ball (making a spare), she bowls a third ball and is credited with a spare plus the pins bowled down with the third ball. When a player fouls while delivering her third ball in the tenth frame, only those pins bowled down in delivering her first two balls shall be counted.

AJBC Rules Covering Organization of Leagues*

DEFINITION AND QUALIFICATIONS

Rule 100. Any league consisting of four or more teams with a minimum of two members, per team, and bowling according to a prearranged schedule shall be defined as a league, and may be sanctioned with the American Junior Bowling Congress.

Rule 101. Singles leagues with a minimum of four junior members may be sanctioned. Juniors bowling with adults in leagues where no cash or merchandise prizes are offered may also be sanctioned by AJBC.

Editor's Note: Awards to both adult and junior bowlers in adult-junior leagues must be confined to awards permitted in their state under the AJBC eligibility rule. The maximum value per award as outlined in the current AJBC Program must be followed for both adults and juniors.

Rule 102. Such league, if sanctioned, shall bowl its schedule regularly as provided in its Constitution.

Rule 103. AJBC leagues may consist of all boys or all girls, or boys and girls. Leagues may be organized to include bowlers of all age levels in the same league, but AJBC special awards are based on the individual's age division.

Editor's Note: AJBC age divisions based on individual's age as of August 1 of the current season are:

Bantams – 12 years of age and under

Juniors – 13 thru 15 years of age

Seniors – 16 thru 21 years of age

MEMBERSHIP – MEMBERSHIP DUES

Rule 104. Membership in AJBC is open to all boys and girls, qualified under the AJBC eligibility rule, who have not reached their 22nd birthday on or before August 1 of the current bowling year. Once sanctioned under this rule an AJBC member is an eligible bowler until July 31 of the current bowling year, unless under suspension.

Rule 105. The AJBC current membership year runs from August 1 through July 31 of the following year. Junior membership shall expire on July 31 of the season in which issued except that membership will continue to be valid in tournaments until October 1

* Reprinted with permission of the American Junior Bowling Congress.

for those who are under 22 years of age on August 1. In addition membership issued in a league which starts its playing schedule on or after March 15 shall be valid for the following season for those who are under 22 years of age as of August 1.

Rule 106. The AJBC membership fee shall be 50 cents per member which shall be submitted to the local AJBC association along with a league sanction application (Form AJ-6) and an individual membership application (Form AJ-14) for each member. The sanction application and membership dues must be filed with the local AJBC association secretary within 30 days after the start of the league's schedule. Supplementary league members must complete an individual membership application (Form AJ-14) which shall be submitted to the local AJBC association.

The payment of one AJBC membership fee entitles the member to participate in any number of leagues. AJBC members participating in a league other than the league through which they are sanctioned must complete an individual membership application (Form AJ-14) for each league in which they participate.

Rule 107. The local AJBC association shall be permitted to charge an additional 50 cents as its portion of the membership fee to help defray the cost of local services to the AJBC members in the area. In no case shall the combined membership fee for an AJBC member exceed \$1.00.

Rule 108. Membership in AJBC can be obtained through a league only. No unattached memberships are given. In a league comprised entirely of junior bowlers, all participants must be members of AJBC. In adult-junior leagues, all junior bowlers must be members of AJBC if the league is to be issued an AJBC sanction. No league will be accepted for sanctioning directly to the AJBC office.

Editor's Note: If there is no local AJBC association serving the area the sanction application will be filed through the ABC local association.

Rule 109. A league whose schedule begins on or after August 1 and before March 15 is classified as a winter league. A league whose schedule begins on or after March 15 and ends prior to October 1 is classified as a summer league. Any league ending after October 1 will be classified as a winter league in the following bowling season. All members of such a league are required to purchase the following season's membership cards.

Where the number of junior bowlers is constant on each team in adult-junior leagues all AJBC awards shall be made available. Where the number is not constant, the junior members shall qualify for

special awards. League awards in such leagues shall be made available upon special application to AJBC.

Rule 110. AJBC Eligibility Rule

Members of the American Junior Bowling Congress may:

- (a) Bowl for trophies, medals, emblems or other symbolic awards within the maximum cost for such awards as established by the state high school athletic association in their state.
- (b) Bowl in events within the state of their residency and adjacent states if the travel distance into another state does not exceed 600 miles round trip, unless the state high school athletic association rules in their state specify a lesser number of miles.
- (c) In the year of their graduation from high school compete in events offering college scholarships or grants in aid if bowling scores do not constitute more than fifty percent (50%) of the considerations for determining the recipients of such awards. Such events must conform with the state high school athletic association eligibility rules.

Travel expenses must be disbursed by an adult except in instances where an AJBC member is personally paying his own expenses.

Any member of AJBC, or any individual under the age of twenty-two (22) who is not a member, who bowls, substitutes or paces in any type of bowling competition where money or merchandise prizes are offered on the basis of bowling score, bowling skill or position standing, shall be ineligible for AJBC membership as of the date of such participation.

Note: Merchandise prizes shall be construed to include any prize of commercial or intrinsic value such as, but not limited to, free bowling game(s) – bowling equipment, personalized or otherwise – vacation trips – trading stamps, etc.

The period of ineligibility for AJBC membership shall be determined in conformance with the individual state high school athletic association rules by the State Junior Association Secretary acting on behalf of AJBC. Such individuals shall be advised in writing of the period of ineligibility, which shall be a minimum of sixty (60) days but not to exceed one year.

Any bowler suspended or disqualified from or denied AJBC membership by reason of this rule may make written application for membership privileges to the local association secretary, but such application cannot be granted until the applicant has concluded the specified period of ineligibility during which time he has refrained

from competing in AJBC sanctioned competition and all bowling competition where money or merchandise prizes are listed as awards. Action on such application will be considered in accordance with the provision of this rule and the respective state high school athletic association eligibility rule. Ineligibility remains effective until the individual has been notified in writing by the state junior association secretary of their reinstatement.

The AJBC Eligibility Rule Applies:

1. To AJBC members and to applicants for AJBC membership who violate the rule prior to such application.
2. To any type of bowling competition -- leagues, tournaments, open play, television events, etc., -- whether sanctioned or unsanctioned, sanctionable or unsanctionable.
3. To bowling, substituting or pacing.
4. Whether there is on behalf of the youngster, personally or otherwise, payment or nonpayment to a prize fund, acceptance of or refusal to accept a prize or portion thereof; scores being counted or not being counted.

Rule 21. Derogatory Conduct. When a bowler is suspended from membership in the American Junior Bowling Congress for conduct derogatory to the best interest of the game, he shall be prohibited and disqualified from thereafter playing with any AJBC sanctioned league or tournament until reinstated by the American Junior Bowling Congress. Any such team which shall knowingly play such disqualified player shall forfeit all games in which such player has taken part and such team may be suspended from membership in the American Junior Bowling Congress.

AJBC CODE

The AJBC suggests this code as a guide to bowling proprietors, instructors, coaches, and others interested in junior bowling to assure a program of wholesome environment, protected athletic eligibility, healthful recreation, and fun for young citizens.

No alcoholic beverages shall be served or consumed in the area where members of the American Junior Bowling Congress are engaged in AJBC functions.

AJBC members shall refrain from smoking during the time any AJBC function in which they are participating is in progress.

AJBC members shall not play pinball machines while any AJBC function or school bowling activity is in progress.

FENCING

NAGWS FENCING COMMITTEE, 1973-1975¹

MARY HEINECKE, *Chairman*, Lawrence Univ., Appleton, WI 54911

MARY BETH CRAMER, *Chairman-elect*, Pennsylvania State Univ., University Park 16802

NANCY CURRY, *Past Chairman*, Southwest Missouri State College, Springfield 65802

RUTH BARKMAN, Texas Woman's Univ., Denton 76201

ELOISE CLARK, Daytona Beach Community College, Daytona Beach, FL 32015

BARBARA HOEPNER, University of California, Berkeley 94720

GERALDINE KISLER, St. Louis, MO

COLEEN OLNEY, 2221 SE 117, Portland, OR 97216

JOANNE SAFRIT, Univ. of Wisconsin, Madison 53706

MARY WELPTON, 1231 N. Arlington Heights Rd., Arlington Heights, IL 60004

NAGWS FENCING COMMITTEE 1975-1977

MARY BETH CRAMER, *Chairman*, Pennsylvania State University, University Park 16802

BE ACTIVE IN FENCING

Membership in the two fencing organizations of the United States will help teachers and students increase their knowledge of fencing, keep pace with changes and support a growing sport.

The Amateur Fencers League of America is the governing body of fencing in our country. Membership is open to any person interested in any aspect of fencing. For information, contact the League's secretary, Irwin F. Bernstein, 249 Eton Place, Westfield, NJ 07090.

The National Fencing Coaches Association of America is the professional organization open to persons who are interested or involved in the teaching of fencing. For information, contact the Association's executive secretary, A. John Geraci, 279 E. Northfield Road, Livingston, NJ 07039.

It is the hope of the fencing committee that both beginning and experienced teachers of fencing will find helpful information on all levels of fencing—beginning and beyond—and on all aspects of fencing—teaching, competing, coaching, officiating and organizing.

¹ Current *Guide* material was prepared by the 1973-1975 Committee; material for the 1977-1979 *Guide* will be prepared by the 1975-1977 Committee.

Teaching Fencing to a Group of Beginners

DENISE O'CONNOR

Denise O'Connor is assistant professor in the department of health and physical education at Brooklyn College where she coaches the women's fencing team. Both her B.S. and M.A. degrees were earned at Jersey City State College, New Jersey. She was a member of the 1964 Olympic team and has been a nationally ranked fencer since 1960. She has five times led the Salle Santelli women's team to a national championship. Currently she is the advisor for the National Intercollegiate Women's Fencing Association and is a member of the United States Commission on Fencing Rules and Officiating. Through workshops and demonstrations, she has been active in the promotion and teaching of fencing.

Simplicity is the key to teaching fencing to beginners. The author has been experimenting with beginners for the past 10 years and has discovered that teaching the simple basics with a great deal of drill work provides the most successful results. Varsity and junior varsity fencers who have experienced a semester of my beginning classes tend to record better results in the long run than team members who learn fencing at team practices. More emphasis is placed on basics and more drills are executed in the class situation whereas in team practice, it is necessary, unfortunately, to produce a competitive team as quickly as possible.

How then is fencing taught to a class? Begin each class with warm-up exercises followed by a review of the last lesson, a drill, a demonstration of a new skill and drills using the new skill. Toward the end of the semester, if you plan a tournament, dispense with everything but the warm-up.

The lessons during the beginning weeks of the class must be well prepared to accomplish the best results in a short time. Begin each lesson with exercises that will stretch and strengthen the thigh muscles and limber up the entire body. Plan demonstrations and vary drills so they will be most beneficial and interesting to your students. While proper execution is the primary goal, your students should enjoy what they are doing. Use correct fencing terminology teaching both the French and English terms.

The class should be seated, grouped together, when you are demonstrating. Demonstrate first with your left side to the group and then with your right side so everyone will see the whole picture. In drills without partners, the entire class will be facing you. When drilling with partners, line the students in groups of five or six with

an even number of lines. The lines face each other and are called one's and two's. One of the lines follows commands while the other line reacts to the movement. Rotate partners frequently.

It is impossible to teach everyone individually, therefore you should call out general reminders during the drills such as, "Bend your knees. Pick up your feet. Keep your back straight. Relax. Stretch in that lunge."

Begin each drill slowly and gradually increase the speed. Since students will find difficulty with coordination and reacting to the verbal commands, it is best to work very slowly in the beginning. Drills are executed following verbal commands. After extensive practice, partners can work at their own rate of speed.

The first three lessons, taught without equipment, cover the en garde, advance, retreat, extension of the arm, lunge and recovery from the lunge. Balance is one of the most important skills in fencing. It is the key to mobility and to the correct execution of attacks, recoveries and defense; therefore, a great deal of time must be devoted to these basic skills in the first lessons. Unfortunately, you cannot devote more than three lessons without the equipment as you will lose the students' interest. You should remember that as a classroom teacher you are not training competitive fencers but a group of students who want to learn how to fence and want to enjoy themselves while doing so. Fencing is fun and should be fun to learn.

Following is a logical progression of teaching the fundamentals of fencing to a group of beginners.

En Garde

1. With lines facing you, command: "En garde. Stand relaxed. En garde. Stand relaxed." Call reminders. "Bend your knees. Front toe over instep. Balance weight in center."

2. A good drill for proper balance is to mark time in place in the en garde position, lifting first one foot then the other. The object is not to move the body by shifting weight. Start slowly until both feet can be lifted as quickly as possible, almost running steps, without any shifting of weight. Later this exercise can be combined with the advance and retreat.

Advance and Retreat

1. With lines facing you:

- a. "Advance, retreat" (slowly).
- b. "Two advances, one retreat."
- c. "Two retreats, one advance."
- d. Vary the drills, starting slowly, gradually increasing the speed.

2. With lines facing you, lead the drill. The class will react to your movements. Start slowly and gradually increase the speed. During this drill, remain in the en garde position for several seconds at various intervals. You want your students to feel a natural and relaxed en garde position.

3. Group the students in lines of five or six with an even number of lines. Give the lines names, one's and two's. Students in line one will follow commands while those in line two will react to their partners. Call out remainders during the drill. Instruct the group to keep proper distance.

4. With one partner as the leader, advance and retreat without commands, one partner reacting to the movements of the other and keeping proper distance.

Extension of the Arm

Instruct your group to extend the arm from the elbow, not the shoulder. Only the arm moves in the extension, not the body.

1. Standing in the en garde position, drill on just extending the arm.

2. Combine the extension with the advance. The arm should begin to move before the front foot leaves the floor and should be fully extended before the front foot hits the floor again. It is almost as if the hand is pulling the front foot forward. With the entire class facing you, drill on this movement using the command, "Advance."

The Lunge

1. With the entire class facing you, drill on the lunge. Remember to call out reminders. The lunge is unquestionably the most difficult movement in fencing as well as one of the most useful in scoring touches. The drill should begin very slowly and, in the course of a few lessons, work to a very explosive action. After the lunge is executed properly, combine the lunge with the advance and retreat.

2. With the entire class facing you, command, "En garde, extend, lunge, recover." Repeat several times, slowly.

3. Combine the lunge with "Advance, extend, lunge, recover" and "Retreat, extend, lunge, recover." Vary the drills.

4. Drill with partners.

Equipment

Explain the proper use of equipment before it is distributed, strongly emphasizing the importance of safety.

1. Always carry the foil with the point toward the floor.

2. Wear the proper protective equipment, mask, jacket and glove.

(Under no circumstances are students to participate in a fencing class

with T-shirts or sweatshirts. They must be protected with a fencing jacket with a sleeve covering the foil arm.)

3. Never point a foil at another person unless both are wearing masks and jackets.

4. Always check the tip of the foil to be certain that it is not broken and that it is covered with a rubber tip.

The Grip

After a demonstration, have the students practice manipulating the point with their fingers.

First Position and the Salute

Teach the class to salute you at the beginning and end of each lesson. Follow the etiquette of fencing at all times in your fencing classes. It adds to the romanticism of the sport and continues a long tradition.

Drills with Equipment

With partners facing each other:

1. Salute each other.

2. In the en garde position, follow the commands of advance and retreat, keeping the foils crossed at the points at all times. This helps to maintain good distance.

3. In the en garde position, practice extending the foil and hitting the target with the point. The blade should bend slightly when the point reaches the target.

4. In the en garde position, students in line one will retreat as their partners execute an advance with an extension.

5. In lunging distance, line one will extend, aim, lunge and recover. The point should hit the target where aimed. Alternate.

6. Line one will retreat as line two executes an advance, extend, aim, lunge, recover. Alternate.

7. One fencer will act as a leader with the other reacting. The students in line one will advance and retreat and try to hit their partners with a lunge. Start slowly and gradually increase the speed. Keeping balance is most important.

Beat on the Blade

With partners:

1. Alternate beating blades, beating the center of your blade against the center of your partner's blade. The beat is not a violent one but executed with your fingers and a snap of your wrist toward the blade.

2. Alternate beating the blade twice, then three times, each time keeping your blade as close to your partner's blade as possible.

3. Drop your point under your partner's blade and beat it on the other side. Drop the point with your fingers, again keeping your blade as close as possible to your partner's blade. Your arm should not move at all. Practice this several times, moving your point from one side to the other, always moving underneath the blade. Be certain that you always beat the center of your blade to the center of your partner's blade and that the point is always aimed at the target before you extend. You do not have to beat your partner's blade very hard, just enough to deflect it from the line of your target.

Beat-Lunge

Facing partners, drill first in four, then six.

1. Beat, extend, aim, lunge, recover. Repeat and alternate.

2. Line one retreats as line two advances and beats. The hand must move slightly before the foot. The arm is bent when executing a beat on the blade. Practice just the advance and beat.

3. Line one retreats as line two executes an advance with a beat, extend and aim, lunge and recover. (After several practice drills, begin to drop "extend" and "aim" from the commands.)

Teaching fencing is fun and enjoyable if you remember to keep it simple. If you know the basic foil fundamentals, you will teach a successful course in foil fencing. Start slowly, work slowly and be well prepared.

Innovative Approaches to Teaching Fencing

BARBARA BAXTER PILLINGER

Barbara Pillinger has previously published in the NAGWS Fencing Guide. Currently she is dean of women at Lawrence University, Appleton, Wisconsin. She graduated summa cum laude from the University of Illinois, Urbana, received her M.S. degree in physical education from Smith College, Northampton, Massachusetts, and holds a master's and doctoral degree in psychology from Harvard University, Cambridge, Massachusetts. She has taught and coached fencing at Radcliffe College, Cambridge, Massachusetts, and at the University of Wisconsin-Madison.

Teachers of fencing are looking for new and fresh approaches to teaching, not merely for the sake of something different, but to present complicated techniques or movement patterns more clearly and effectively. The following are ideas which may be helpful in teaching this intriguing, exciting sport.

Tape Recorder

A taped series of fencing commands provides an interesting teaching technique and an unusual mode for assessment. A suggested pattern is as follows:

Attention	Advance, retreat
Salute	Parry 4, riposte
En garde	Parry 6, riposte
Advance, advance	Parry 4, riposte
Retreat, retreat	Parry 6, riposte
Lunge, recover	Retreat, retreat
Retreat, retreat	Advance lunge, recover
Advance, advance	Attention
Lunge, recover	Salute

While each fencer performs the prescribed movement pattern, the other members of the class write a constructive critique of that individual's performance. The fencer is asked to write a self-evaluation immediately following her performance. The written evaluations are given to each fencer to provide immediate feedback as to the quality of her fencing form.

Videotape Recorder

The videotape recorder is a superb teaching tool for fencing. The visual feedback is very effective when used with the taped series of fencing commands listed above. Students can be photographed from both a front and side view; the lateral view is perhaps more helpful. Fencers commonly lament that their form diminishes greatly when bouting, that they "fall apart" in the bout itself. Yet often it is difficult for student and teacher alike to ascertain with accuracy the specific mistakes made in a bouting situation. The videotape recorder is an ideal teaching aid in this respect. When television bouting, it is best to eliminate the officiating decisions that are interspersed throughout the actual fencing action. This method saves time in the replay and places primary focus on fencing form and technique in bouting. Slow-motion and still shots are also helpful in analyzing the action. Students thrive on immediate visual feedback, and their fencing improves accordingly. The videotape recorder is particularly recommended for teaching intermediate and advanced fencers in that it truly maximizes individualized instruction.

The Glove Game

Several interesting exercises utilize the fencing glove to develop eye-hand coordination and quick reaction time. One such exercise is that of "glove against the wall." In this exercise, the fencer tries to catch, with the tip of her blade, a glove which her partner drops vertically along the wall. The thrust should be used first; later the full lunge may be added. Other glove games without the foil include the following exercises:

1. Fencer A assumes the en garde position facing Fencer B. Fencer B tosses the glove just short of Fencer A, who lunges to catch the glove with a fully extended arm.

2. Fencer A assumes the en garde position. Fencer B stands opposite Fencer A with the glove held at arm's length above shoulder level. Fencer B drops the glove; Fencer A extends her arm to catch the glove at shoulder height.

3. Similar to Exercise 2. However, the fencers stand at lunging distance. Fencer A catches the dropped glove in a full lunge and then recovers.

4. Fencer A assumes the en garde position. Fencer B stands behind Fencer A and throws the glove over Fencer A's shoulder. Fencer A extends her arm and catches the glove in a full lunge position. This exercise is challenging for both the thrower and the catcher.

Many other variations of the glove game are possible for meaningful learning.

Don't Fence Me In

A musical fencing drill presents an effective means of enhancing the smooth, rhythmic quality of fencing. "*Don't Fence Me In*," an oldie recording from the 1940s, is surprisingly adaptable to a musical fencing routine and adds a touch of good humor to a class warm-up session. In another musical dimension, Beethoven's *Ninth Symphony* played as background music for individual warm-up exercises or informal group practice adds a special atmosphere to the fencing class.

The Poetry of Fencing

Fencing, like poetry, possesses qualities of cadence, rhythm and meter. In teaching movement sequences in fencing, it is helpful to count and clap the rhythms involved. Examples include thrust-lunge ("1,2"), balestra ("1, 2"), and advance lunge ("1 & 2").

A good rhythmic sequence for practicing the parry-riposte can be verbalized as "Eh, la, la, la, eh, LA." Clap the rhythm; say the words; accent the last beat. Fencer A faces Fencer B. Fencer B extends her arm. Fencer A parries (eh), ripostes (la), parries (la), ripostes (la), parries (eh), and scores (LA). Fencer B works in opposition, varying the distance. Start slowly; increase the speed as the fencers become more adept. Have the fencers say the words as they practice the parry-riposte sequence in order to develop a strong sense of rhythm.

Occasionally poetic fencing renditions may be shared with the class -- for example, scenes from Shakespeare, John Updike's *Idyll*, and Edwin Markham's *The Women with the Foil*. As a final class assignment, ask the students to prepare their own written expression of the poetry of fencing. Here is an illustration of one such student endeavor:

Fencelet

To fence, or not to fence,
That is the alternative:
Whether 'tis nobler in the mind to suffer
The touches and slashes of hostile blades
Or to take foils against a pool of fencers,
And by opposing end them.
To fence -- to fence, all the more;
And by a touch we end the losses,
And the thousand poisoned punctures
That a lamé is heir to. 'Tis a bout
Devoutly to be wished. To fence --
To fence -- perchance to win:

Halt, there's the foil!
For in that win of victory
What satisfaction may come
When we have proven the powers
Of our mighty foil --
Must give us pause.
To practice.

*Cheryl Krejcarek '74
Captain, Women's Fencing Team
University of Wisconsin-Madison*

Innovative approaches to teaching fencing are limited only by each teacher's unique ingenuity. Indeed, the art and sport of fencing require keen agility of mind and body. The creative teacher also employs agility of mind and body in discovering new ways of approaching this ancient and honorable sport and of achieving excellence.

Training Fencers' Control of Distance

RICHARD J. PERRY

Richard Perry, Maitre D'Armes and Ph.D. candidate, was fencing coach at the University of Detroit from 1953 to 1972, and is now assistant coach at Michigan State University, East Lansing. He was Coach of the Year in 1971 and coached the 1972 NCAA champion team.

As you were in the middle of a beautifully executed balestra attack, did you ever suddenly get that sickening feeling that you should have lunged instead? Did you ever have a brilliantly executed parry-riposte fail to turn on a colored light because the inch of ozone between your point and your opponent's target would not produce the needed 500 gm pressure? Welcome to the club!

The electrification of foil scoring has resulted in a premium being placed on fencers' ability to control the distance. To score, the electric foil must hit with some forward movement relative to the target. This means that if a fencer overshoots and thus misses the target, he places himself in double jeopardy of not scoring and giving up a cheap touch. This happens in both foil and *épée*. Have you ever experienced that dry-mouthed feeling on finding yourself eyeball to eyeball with your opponent, with your point two feet beyond the target and with your opponent's point still between the two of you?

For purposes of this presentation, let us define *controlling the distance* as being able to:

1. hit without lunging when the distance is too short for a lunge
2. select and use a lunge at the lunge distance
3. select and use a *flèche* at the *flèche* range
4. select and use a balestra in a balestra range
5. select and use a *buttinando* in a *buttinando* range
6. recognize distances beyond the practical range of any of these moves and act accordingly.

This presentation will describe how one coach helps fencers learn to control the distance. Doubtless there are ways in which my techniques of coaching this rather complicated part of fencing can be improved. I am in constant search for such ideas and any others which will develop more successful competitors with expenditure of fewer hours by both competitors and coach.

A Theory of Distance

Each individual fencer has a personal set of distances, yet there is

a common thread of reasoning which makes it possible to standardize the presentation of these distances. The first personal distance is measured from the eye to the point when the arm is fully extended. Let us call it the basic extension distance, or E distance. The second personal distance is measured from the back foot to the weapon's point in a *comfortable* lunge with a fully extended arm. It is the L distance. The third distance is more standardized – the flèche (F) range. It is the lunge distance plus 0 to 8 inches. The fourth distance is the balestra (Ba) range, i.e., the lunge distance plus 6 to 14 inches. The fifth distance is the buttinando (Bu) range, i.e., the lunge distance plus 12 to 18 inches. Anything beyond the fifth range is considered unwise for any attack without first closing to a practical distance or range. The deliberate overlap of ranges recognizes personal differences and the difficulties of quick perception of depths. By setting the F range as is done in this distance system, we have been able to inhibit the proneness of young fencers to attempt flèche attacks from impractically long ranges. It is not necessary that every fencer master the balestra. It appears to be useful for some fencers and not for others. If a fencer does not use the balestra, we reduce the near limit of the buttinando range to overlap the far limit of the flèche range.

We introduce distance training in the second lesson for beginners, immediately after they have begun to learn the guard, advance, retreat and lunge. When working with an individual fencer, I place myself at the E distance and get the fencer to extend the arm quickly and hit a marked square inch of my target. Many beginners require encouragement to extend the arm crisply and make a solid hit. I demand that the fencer start from a guard which closes the six (outside) side, and complete an extension with the outside still closed. These techniques are similar to those described by Lukovich in his book, *Electric Foil Fencing* (Corvina Press, 1971).

As the fencer shows signs of beginning to master this guard and high line extension, I will, without forewarning, withdraw to the L distance *after* the fencer has begun an extension. The quick learner will recognize that the extension will not hit and complete the move by lunging. Most fencers must be helped to complete the move. Then we practice recognizing and hitting at the E and L distances by executing 50 to 100 hits. Sooner or later the fencer begins to recognize my withdrawal during the extension and lunges on recognition of the need for it. This means that the fencer does not know at the start of the extension whether a lunge will be necessary. Of course, he is simultaneously learning to start the lunge with the hand. After a while, on a fencer's recovery from a lunge, I retreat to the buttinando range instead of advancing to the E distance, and I tell the fencer to hit. The quick learner will usually take an extra

second, then advance and lunge, and with this begin to learn both how and when to use a buttinando. Others require varying amounts of help in mastering this problem.

The flèche and balestra ranges are distance problems for more advanced fencers, but I use the same basic technique in presenting them. I introduce the flèche to each fencer individually only when satisfied that the move will be useful to him or her, and that mayhem or suicide will not result from the fencer's use of it. I believe that the flèche is the most difficult single move for the developing fencer to master.

With an advanced fencer, distance practice is the first part of every lesson I give in any weapon. I will stop at the E distance, then the L distance, then the Bu range, then the Ba range, and start mixing them up, with occasional stops at the F range. There are additional situations in each weapon where the range is extremely short, shorter even than the E distance. Hitting at these short ranges can be practiced rather well in parry-riposte combinations between coach and fencer, preferably at high speeds.

When warming up a fencer for competition, I always help him check the various distances and ranges. The fencer who is hitting well at all ranges quickly gains self-confidence.

Game for Distance Judging

We use a game to develop judgment of distance and appropriate use of footwork. Fencer A goes en garde, extends the arm and places the point on the target of Fencer B. Fencer B is now the "problem," and is free to advance and retreat up and down the strip. Fencer A must maintain the extension and the point contact with B's target. Either loss of contact or a break in the extension to keep from breaking the blade is a point against A. If A breaks the blade, he or she pays for it, C.O.D. We have yet to have our first broken blade in this game. The first half of the game lasts for 30 seconds. Then the fencers reverse roles, and A becomes the "problems" for the 30-second, second half. The fencer who gives up less than 10 points in a half is doing well.

Those who first try our game are usually surprised by the physical demands it places on them. We encourage the problem fencer to lunge once in a while. The "solver" must retreat in order to maintain the extension and contact. If the problem fencer recovers backward, then the solver must lunge to maintain contact. But if the problem fencer recovers forward, then the solver must retreat a second time. If the problem fencer recovers backward and retreats, then the solver must lunge and recover forward. One minute of this is plenty, and the area will then be open for another pair.

This game is a contest for any pair. A six-foot man and a five-foot

woman can be paired without fear of injury. The smaller fencer's shorter distances and smaller moves can be a real problem for the taller fencer, and the taller fencer demands extra speed from the smaller one. The distance game allows fencers to practice a difficult part of fencing in the absence of the coach. It also serves as a practical conditioning device, and helps fencers to learn to rely on their legs to solve most distance situations.

The experience of recent years has caused me to believe that, on a layoff from competition or practice, the first thing most fencers lose is the feeling for distance. However, this sensitivity is usually easily recoverable for the competitor who has previously learned the distances and ranges thoroughly.

The author hopes this article will stimulate comment, criticism and suggestions as feedback.

Controlling the Point in Foil

RICHARD J. PERRY
Michigan State University
East Lansing

For several generations fencing masters have encouraged students to aim their feints at an imaginary point about an inch inside the edge of the opponent's bell guard when the opponent is in a conventional sixth or fourth guard position. It is doubtful that many fencing masters recognized a basic physiological reason for this procedure.

Every human being possesses a cone of vision, the apex of which is on the bridge of the nose midway between the center of the pupils of the eyes. The angle of radiation from the center line of the cone of vision is only 5 degrees. This means that at a distance of 6 feet the circular base of the cone is only 6.3 inches in diameter.

On the extension for a feint, as long as the attacker's point and the defender's bell guard are placed within the circular base of the attacker's cone of vision, the attacker can instantly see any change of relationship between the weapons as initiated by the defender. If, on a feint, the attacker's point is far enough away from the defender's bell guard to be outside the attacker's cone of vision, the attacker must literally look twice to see what is going on and will get a double image as he or she tries to see.

Evaluation of Students in Fencing

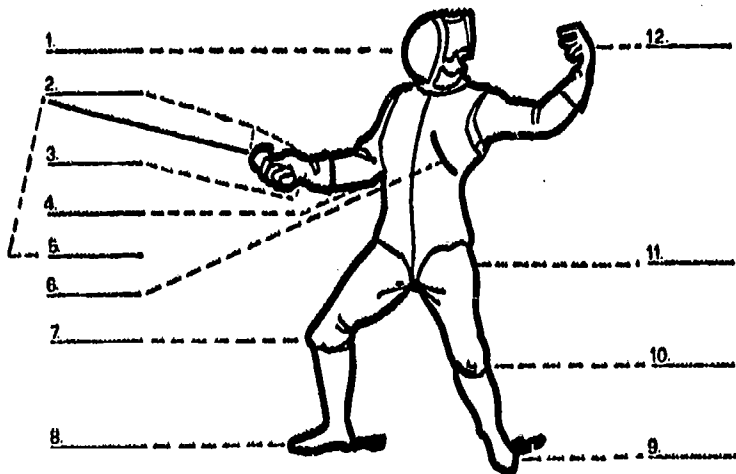
ELOISE NEWELL CLARK

For the past 18 years, Eloise Clark (B.S., M.A.) has taught and coached fencing at the University of North Carolina, Stetson University and Daytona Beach Community College, where she is presently located. She attended the 2nd National Institute and has conducted clinics in Florida. She headed fencing for many years at Camp Ton-A-Wandah, Hendersonville, North Carolina, and is a member of AFLA and NFCAA.

Evaluation, testing and grading are changing rapidly in the physical education field today. Even though many schools, colleges and universities require only a pass or fail for grades, it still behooves us to continue some type of diagnostic procedures to help students learn, remember and achieve a degree of success in sports. Therefore, the simple feedback system of *Diagnos-A-Sport* has been implemented to help instructors in various sports with beginning students. This system can be used with video feedback and is an inexpensive method of helping students see their mistakes if videotapes are unavailable.

The following diagrams are presented in hope that students will see their mistakes more clearly and try to change them for more skill improvement.

DIAGNOS - A - FENCER



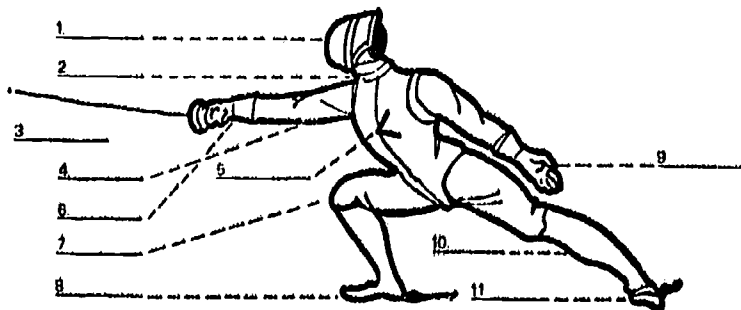
1. Face toward opponent
2. Grip; bell guard breast high
3. Pommel on wrist
4. Elbow away from side (6")
5. Point in line with opponent's eye
6. Chest closed to opponent
7. Front knee flexed over toe
8. Front foot forward
9. Back foot flat — right angle to front foot
10. Rear knee flexed over toe
11. Hips tucked under
12. Rear hand flexed toward head — elbow shoulder high

GROUP DIAGNOSTIC SHEET

Diagnosing En Garde

Grade	Name	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.

Figure 1. Diagnosing en garde.



1. Face toward opponent
2. Foil hand shoulder high
3. Point in line with target
4. Fencing arm straight
5. Chest closed to opponent
6. Pommel — in line with wrist
7. Front knee flexed over foot
8. Front toe toward opponent
9. Non-fencing arm straight, palm up
10. Rear leg straight
11. Rear foot flat

Figure 2. Diagnosing the lunge.

On Figures 1 and 2, the numbering of variables starts with the head and works down on the front side (side facing opponent), then up the back side of the fencer. Most variables occur in the action toward the opponent. On the back side, the arm and foot are the most common variables. Figures 1 and 2 are to be used individually and markings can be made quickly on them and then recorded on a Group Diagnosing Sheet (Figure 1). Copies of the diagnosis can be seen or even reproduced for the students' aid.

A technique check can be administered by having four students demonstrate all beginning techniques twice while other students in the class evaluate them on a 4, 3, 2, 1 basis. A suggestion list and order of techniques to be performed by each student are below; they may be varied as long as all are performed in two minutes or less. (The press and bind would not be used in beginning classes.)

Offense

- 2 Thrust-lunges into 6
- 2 Thrust-lunges into 4
- 2 Thrust-lunges into 7
- 2 Thrust-lunges into 8

Repeat above with
disengage and beat

- 2 Beat disengage lunge
- 2 Press disengage lunge
- 2 Binds & lunge
- 2 Advance & lunge

Defense

- 2 parries 6
- 2 parries 4
- 2 parries 7
- 2 parries 8

Repeat above with
circle parries

- 2 Parries
- 2 Parries
- 2 Parries
- 2 Retreats & parries

Starting a High School Fencing Program

REVEREND LAWRENCE CALHOUN

Lawrence Calhoun is a full-time earth science instructor at Notre Dame High School for Boys, Niles, Illinois. As varsity and freshman-sophomore fencing coach for eight years, his teams have earned a dual meet record of 135-15-1, have won seven conference championships and a state championship, and have produced a national epee champion, seven national finalists and two fencers on the U.S. team to the Under-20 World Youth Championships in Buenos Aires, 1973. Reverend Calhoun is the national chairman for the Junior Olympic Youth Program, AFLA, and is actively involved in high school, amateur and college fencing in the Niles area.

Establishing a fencing program in most high schools is a difficult and frequently unrewarding endeavor. This article will briefly explore how to establish such a program from scratch: the problems of bucking opposition; overcoming prohibitive costs, lack of interest and lack of qualified personnel; scheduling; and program development. The ideas in this article do not guarantee success, but the format was successful in the author's school.

Qualified Personnel

It is unfortunate that fencing is not offered in most college curricula for physical education majors. It is the rare male physical educator who knows anything about fencing at the end of his formal training. Many women physical educators are more fortunate in obtaining at least a minimum knowledge of the sport in school. A problem arises when the girls receive fencing instruction in class and the boys do not.

It seems that many fencers become professionals—doctors, lawyers, engineers, etc.—and as such, do not pour back their knowledge of fencing into the sport. Fencing to them is strictly an avocation, which is good in itself, but creates a personal, non-communicative situation that does not promote or engender the sport in others. With professional fencing knowledge unavailable to the hopeful beginner, instruction usually comes from a noninitiated and non-involved person.

The author can vouch that anyone can learn fencing without previous knowledge of the sport, but it does take a lot of time and effort. One advantage to this pristine condition is that the novice

instructor has no previous bad habits to pass on to students and he can learn how to teach properly the first time around. If a natural athlete or sport-sensitive person comes to fencing, the learning processes are more rapid and productive.

There is no substitution for instruction! For the person who wishes to be a fencing instructor, reading a book is insufficient. The instructor must take private lessons and coursework and should attend fencing camps and various local competitions. Some of these projects can be expensive, but there are programs available for a nominal cost.

The second phase in the instructor's learning process may come several years later when he finds someone else interested in fencing, someone whom he can train to take over in the event of a change of jobs.

Starting from Scratch

Publicity. Consult with the athletic director or school club coordinator before starting a club. Use all the school media available to send out the call. Use the public address system at announcement time, the bulletin boards, and school newspapers. State whether the program will be for boys, girls, or both. If you are lucky, you will get 8 to 12 people.

Interest. Interest must be self-generated. The coach must make clear that the fencers-to-be will have to ignore the jibes they may face initially. The sport is not like ballet, as many believe, but it is a very strenuous sport which few others can match for energy output, especially in a tournament. At this stage in the life of the club, there will be little opposition from faculty or students. Resistance will come in the form of apathy or a "so-what" attitude.

The fencers must develop respect for each other and realize the place of their sport in the overall athletic program. Once the club has sets its goals, the members can go out and compile the best club record possible, trying to win over the student body and finally the school at large. One way to do this is to invite a known fencing group, such as a university team or state championship team, to conduct an all-school fencing assembly. This will be viewed as an odd idea at first and perhaps even an invasion into the sacred precincts of the major sport domain, but if the idea is proposed as a cultural and learning opportunity, permission might be granted. If the group is dynamic, the students will be won over before the assembly's end. This is the beginning. The sleeping giant is prodded into realization that something new has come to the school. Interest is now generated from within and without. The rest is up to the club.

Funding. As the club tries to raise money it will need help.

Many student governments have funds for club use. It is wise to seek out nearby universities which might have fencing equipment no longer suitable for their needs but excellent for beginning groups. Obtain tickets to college or professional sport events in the area and raffle them off if such a method is allowed.

Scheduling. It is essential to get some combat experience as soon as possible. Do not wait until the fencers are "ready," for they never will be. If you want to swim, you have to get in the water. Besides the lessons and drills, the best form of instruction is combat with someone better than oneself. Many established teams are quite willing to scrimmage with clubs. The other teams will use the club as a super practice and perhaps maul the beginners, but both teams learn from this experience.

Development of the Sport

Instruction. The coach should not be so nearsighted that she lives only in the closed world of high school competition. The world outside amateur fencing is available and should be encouraged. Before fencers are ready to venture into this arena, the coach should instruct them in proper methods and style. Do not allow the fencers to go out and copy everything they see or adapt fads from any source. If the coach takes advantage of going to various AFLA and NCAA events in the area, she can converse with masters and other coaches to get the feel of the fencing community and to find out what is fad and what is proper. The students learn from fencing others; the coach can learn from watching coaches coaching.

The old European school of having a fencer work for one or two years on footwork and then putting a blade in his hand is fast fading. The author believes that one should put a blade in the fencer's hand immediately and teach the footwork and handwork together. Immediate contact with the weapon is essential to maintain interest, especially in young and quasi-motivated fencers. Bouting, drills and lessons are all essential and should be mixed in a day's or week's lesson plan. As soon as the fencer has at least a minimum of the basic moves, she will want to try them in combat. Win or lose, this competition will help the student and coach to correct basic errors.

This author has tried to wed these ideas and has come up with a winning combination. Drills, correction and more drills are essential and can accomplish the task of teaching many students simultaneously. In private lessons the coach can work on an individual's faults. The coach should strive to use correct terminology so that students will be able to go anywhere and take lessons or learn.

Publicity. Once the team is established, tournament results should be announced over the public address system. If a fencer goes undefeated in a dual meet, make her name known to her peers. If a

girl does well in AFLA competition and makes various teams out of the area, be sure to publicize it. When students hear that the fencers are active and succeeding, they will begin to show them respect.

Saturate the media. Invite girls from other sports for a practice and show them how difficult a fencing workout can be. If the best defense is a good offense, then in propaganda, publicity and peer equality, a sport has to be in the forefront and contend for recognition.

Additional funding. If the school athletic budget is not sufficient for operation, such projects as selling candy, candles and programs at games may be possible. Maybe the sponsoring of a dance will obtain funds. The coach can conduct a grade school clinic for a few weeks at a nominal fee. The coach should become a recognized and ranked official in the AFLA and, if possible, in the NFCAA. Eventually the coach can officiate at dual meets on a high school and college level and donate her fees to the fencing team or club.

Involvement. Above all, the coach must become involved with the major national fencing bodies: the Amateur Fencers League of America (AFLA), the National Fencing Coaches Association of America (NFCAA) and any state fencing association. These organizations are excellent sources for learning new ideas and gaining experience from the experienced. The coach must mingle with these groups if she wishes to improve. She must also encourage her fencers to do the same and to enter amateur meets at all levels. The earlier the fencers experience the fencing world, the sooner they will set their sights on improving and winning. This is not a dream or wishful thinking. The author has had students attain such goals as national championships in several years. To attain such honors, a student has to concentrate on fencing as her sports avocation. Participation in several sports is praiseworthy, but a champion has time for only one sport although she may dabble in intramural sports for fun.

If this is true of a fencer, then the coach must go the gamut also. She should be willing to earn the highest possible directing and coaching ranks possible. One does not have to be a Maitre d'Arms to produce champions, but one should not shun the opportunity to become one.

Summary

This article has tried to show how one person was successful in establishing a high school fencing program and nurturing it. The coach and fencers must work hard in developing proficiency and capital to function. If a coach is lucky to have a state, divisional, regional or national champion, it is proof positive that the work was done by all.

Through it all the coach must be a psychologist to guide the

fencers through periods of elation and dejection; a physical therapist and physiologist to get them over the right plateaus at the correct time; a financial wizard to make it all come true; and a friend with the proper decorum and distance sprinkled with the right amount of badinage to keep a tight unit producing and liking it.

The Fencing Coach

MURIEL BOWER

Muriel Bower is an associate professor of physical education at California State University, Northridge. She has taught and coached both the men's and women's fencing teams during the 12 years she has been at Northridge. Her B.S. degree was earned at the University of California, Los Angeles, and her M.A. at the University of Southern California, Los Angeles, where she taught fencing for 10 years. She was awarded the Fencing Masters credential in 1970. She was Fencing Guide chairman from 1967-1969 and has served as president of the Intercollegiate Fencing Conference of Southern California as well as the Western Intercollegiate Fencing Conference for men and women. She managed the U.S. fencing team in the 1973 World University Games in Moscow.

A girl needs self-confidence to be successful in any sport, and fencers are no exception. To build self-assurance in a fencer, the coach must first work for a foundation of strong skills. Individual lessons are a necessary part of skill training for the competitor. As a student progresses, lessons should be more demanding in terms of speed and power of actions and reactions, endurance and versatility. Hand techniques should be combined with increasingly demanding footwork drills to build a well-rounded fencer.

Since a high school, college or university coach has a relatively brief time to train competitors, it is undoubtedly better to develop a limited number of attacks which are performed effectively than to teach a wide variety of possible maneuvers which cannot all be mastered. Too wide a variety of attacks to choose from can leave an inexperienced fencer paralyzed by indecision. The simple attacks and beat and feint attacks of two movements are sufficient if they are well done at the proper time.

In actuality, fencing is often different from the nicely executed attacks which are taught in classes and in lessons. Infighting is bound to occur in today's mobile fencing when fencers misjudge their distance or when both move at the same time. Girls must, unfortunately, be taught the realities of effective infighting because they will certainly need such skills. They must be prepared for this before their first meet so they will understand the need to continue fencing rather than stop after the first or second actions.

Tactics

The competitor must learn when an attack will and will not work

NAGWS BOWLING-FENCING GUIDE

through conscientious practice under the coach's supervision. Tactics need special consideration and, while a coach can tell a fencer what to do against a given fencer in a given situation, the competitor needs to be encouraged to think for herself. After much observation, the author believes the best coaches encourage competitors to think for themselves on the strip. Some coaches tell a student what actions to use against each opponent, but this practice keeps a student overly dependent on her coach. A fencer must learn to evaluate speed, distance and styles so she can fence as an individual rather than as an extension of her coach. If a girl asks what to do in a given situation she should be helped but only when she feels the need.

Physical Conditioning

Physical conditioning is also a coaching concern. Increasingly demanding lessons and workouts, along with increased bouts, are a direct approach to conditioning. A dual meet or small individual meet is not particularly demanding physically if a fencer is in good shape, but knowing she is working to be in top form should increase a girl's confidence in her ability. If she works hard to prepare herself, she is apt to expect it to pay off in competition where she may compete like the winner she expects to be, rather than as an also-ran.

For large meets which may last for several hours, a day, or more, a girl needs to do more than work an hour a day or every other day. Running is a good conditioner, along with regular workouts, for the larger, more demanding meets. It takes about eight weeks to peak in terms of cardiovascular efficiency so girls need to plan on extra, increasingly demanding exercises in time to peak for the big event. Proper diet, sleep, etc. are also part of overall conditioning. All these factors work together to build towards self-discipline and fitness for the task to be done. If a girl is well prepared she is more likely to perform her best than the girl who spends little time in preparations and just hopes she will do well.

Mental Conditioning

Mental conditioning must not be overlooked. Increasing skill should enhance a girl's positive feelings about her ability. A coach must know each of her girls. Some come equipped with an overabundance of confidence which may not be in line with their real ability. Such girls need to be guided towards recognizing their need for improvement if they are to be as good as they imagine they are.

Mental conditioning must not be overlooked. Increasing skill should enhance a girl's positive feelings about her ability. A coach must know each of her girls. Some come equipped with an

overabundance of confidence which may not be in line with her real ability. Such a girl needs to be guided towards recognizing her need for improvement if she is to be as good as she imagines she is.

A girl who feels she is not very good needs encouragement in order to work up to her potential. A beginning competitor may be touchy in a variety of ways when competing. Some cannot stand to have teammates cheer for them because it "rattles" them. Others do not do well unless teammates are vocally with them. Some need steadying and some need stimulation and encouragement. It is up to the coach to help provide what each individual needs. Team captains need to work with the coach to help each girl do her best. As skill and competitive successes increase, such insecurities usually decrease, but a coach who is fielding a girls' team for their first meet needs to be a mother to them in many ways. Sensitivity to their problems and feelings is a must.

Morale

Team morale is probably as essential to overall team success as any other factor. Fencing is an individual sport and often those who love fencing do so partly because they can compete on their own. They win or lose because of their own effectiveness on the strip. They tend to be strongly individualistic. Still they are a team. They work together, travel and eat together and they fight for the same school or coach as well as for themselves. They must function as a strong unit to be an effective team. In selecting a team, it is important to consider how well a group will work together. Team members need to socialize together and accept the "one for all, all for one" concept.

It may be helpful to fencers to select a second to assist them. A second can be someone chosen by a fencer as the person she would most like to have on hand to encourage, advise, critique and generally assist her during a meet. All other fencers should stay away from a fencer and her second immediately before or after a bout.

A coach is a teacher, parent, friend and authority figure who must believe in her girls. If she bolsters them on all fronts, her efforts are bound to be rewarding.

Suggested Team Score Sheets for Fencing

KAREN KENYON

Karen Kenyon obtained her B.A. and M.A. degrees from Arizona State University, Tempe. She is chairman of the girls' physical education department at Maine West High School in Des Plaines, Illinois. She is a member of the Amateur Fencing League of America, National Fencing Coaches Association, and is past Illinois NAGWS fencing chairman. She has presented many clinics in the Illinois area. She has coached boys and girls in interscholastic competition and has coached women in intercollegiate competition at Illinois State University. Her boys' teams won the Illinois state title twice.

Finding suitable score sheets for dual and tri-meets is sometimes a problem for the beginning coach. The following score sheets have been tried for several years and have been found to be suitable and adaptable to most situations.

Dual Score Sheet

To utilize the dual score sheet for one strip of fencing with four competitors on each team, the names are first listed on the right side of the sheet (Figure 1). Each competitor then assumes that number for the duration of the competition. Names of the home team fencers are listed in the left column in 1,2,3,4 order. Names of the visiting team competitors are then listed in the middle column in the numerical sequence shown.

Each bout between competitors is read horizontally. For example, the first bout is between home competitor 1 and visiting competitor 4. The second bout is between home competitor 2 and visiting competitor 3. Touches are scored against the competitors in the boxes in tally form.

The initials of the winning school are placed in the column marked "School."

Finally, when the strip competitions are finished, the scores of the home team and the visitors are tallied and placed in the lower right corner. If two strips have been utilized for the dual meet, the scores of both strips are combined for the total match score.

Tri-Score Sheet

Assuming that each school fields its best four fencers for a tri-school meet, the suggested score sheet is suitable (Figure 2). A

draw is held at the beginning of the competition to determine which school has the 1-4, 5-8 or 9-12 position on the score sheet. The last name of each competitor is then entered in the left-hand space of the score sheet with the school designation. The competitors do not fence the members of their own team.

The order of bouts is read vertically with the first bout being between Fencer 1 and Fencer 5, the second bout between Fencer 2 and Fencer 6, the third bout between Fencer 3 and 7, and so on. It is most advantageous to run the bouts on two strips to lessen the time involved.

Scoring of each bout is done in the usual AFLA manner with tally marks and a V (Victory) or D (Defeat) marked for each competitor.

When the competition is completed, the placement of each competitor for the meet is figured and placed in the P (Placement) column. Points can be given for the placement of the fencers with 12 points given for first place, 11 points for second place, and 10 for third place to determine a school winner. A second alternative is to count the number of victories for each team and score the meet with first place given to the school with the most victories.

DATE _____

DUAL MEET INTERSCHOLASTIC FENCING SCORE SHEET

_____VERSUS_____

(Host School)		(Visiting School)	
HOME	VISITORS	SCHOOL	
1 _____ <input type="checkbox"/>	4 _____ <input type="checkbox"/>	_____	
2 _____ <input type="checkbox"/>	3 _____ <input type="checkbox"/>	_____	
3 _____ <input type="checkbox"/>	2 _____ <input type="checkbox"/>	_____	
4 _____ <input type="checkbox"/>	1 _____ <input type="checkbox"/>	_____	
1 _____ <input type="checkbox"/>	3 _____ <input type="checkbox"/>	_____	
2 _____ <input type="checkbox"/>	2 _____ <input type="checkbox"/>	_____	
3 _____ <input type="checkbox"/>	1 _____ <input type="checkbox"/>	_____	
4 _____ <input type="checkbox"/>	4 _____ <input type="checkbox"/>	_____	
1 _____ <input type="checkbox"/>	2 _____ <input type="checkbox"/>	_____	
2 _____ <input type="checkbox"/>	1 _____ <input type="checkbox"/>	_____	
3 _____ <input type="checkbox"/>	4 _____ <input type="checkbox"/>	_____	
4 _____ <input type="checkbox"/>	3 _____ <input type="checkbox"/>	_____	
1 _____ <input type="checkbox"/>	1 _____ <input type="checkbox"/>	_____	
2 _____ <input type="checkbox"/>	4 _____ <input type="checkbox"/>	_____	
3 _____ <input type="checkbox"/>	3 _____ <input type="checkbox"/>	_____	
4 _____ <input type="checkbox"/>	2 _____ <input type="checkbox"/>	_____	

STRIP
Visitors

1 _____
2 _____
3 _____
4 _____

HOME

1 _____
2 _____
3 _____
4 _____

STRIP SCORE

(Host) _____
(Visiting) _____

Figure 1. Dual Scoring Sheet.

An Analysis of Research in Fencing

MARGARET J. SAFRIT

Margaret Safrit is a professor in the department of physical education for women at the University of Wisconsin at Madison where her major teaching area is measurement and evaluation. She received her B.S. degree at the University of North Carolina at Greensboro and her M.S. and Ph.D. degrees at the University of Wisconsin. She has taught fencing at the University of Texas and the University of Wisconsin at Madison.

There have been few research studies dealing with fencing at a time when research on the characteristics of athletes in some sports has mushroomed. However, perhaps the lack of research is not disastrous since some of the research in other sports has been hastily done and therefore the results may be of little value. Researchers interested in fencing can benefit from these mistakes and proceed with more tightly controlled research designs. After all, the athlete who contributes time and energy to a research project is essentially being misused when research is undertaken in a careless manner. Also, inaccurate results create confusion about a sport rather than an increase in our understanding.

Five research articles in fencing have been published in the *Research Quarterly* over the past 40 years. Two deal with speed and accuracy of movement as they relate to fencing success (Ketlinski & Pickens 1973; Singer 1968); one involves a comparison of fencers and non-fencers on selected variables (Pierson 1956); one studies the effect of variations from the en garde position (Mastropaolo 1959); and one examines the personality traits of female championship fencers (Williams et al. 1970).

Relationship of Speed and Accuracy of Movement to Success in Fencing

An awareness that fencing requires quick and agile body movements was the motivating factor behind these studies. Subjects for the Singer study (1968) were 66 college women who had taken 18 hours of fencing instruction in a service program. Reaction time and response time were tested using special apparatus, and accuracy was measured using a target with concentric circles. The movement executed by the subjects was a fencing lunge.

Singer used two measures of fencing success:

Criterion
Measure I. 10 $\frac{\text{total touches fencer made against opponents}}{\text{number of contests fenced}}$

Criterion
Measure II. 100 $\frac{\text{total touches fencer made against opponent}}{\text{total touches opponent made against fencer}}$

The results of this study indicate that the two measures of fencing success are unrelated to time, response time or accuracy. Furthermore, response time was unrelated to accuracy, but correlated moderately (.51) with reaction time. Thus, success in fencing could not be accounted for solely by the ability to move quickly and accurately.

The Kettlinski and Pickens (1973) design was similar to Singer's except that highly skilled fencers were used. They hypothesized that a stronger relationship might be found between response time and accuracy with a more competent group of fencers than Singer's sample of service class students. The subjects were 72 top-ranked male collegiate fencers participating in a NCAA Fencing Championship Tournament. There were 24 subjects each for the sabre, epee and foil. The testing environment was similar to Singer's. Two practice trials and six test trials were administered.

The criterion measures of fencing success were identical to those used in the Singer study. The results showed no relationship between either response time or accuracy and fencing success. Again, the movement was a fencing lunge performed in a laboratory setting rather than in an actual contest. The data supported Singer's results.

Comparison of Fencers and Non-fencers

Pierson (1956) utilized pure laboratory tasks to measure reaction time and movement time. The subjects performed five fine motor skills in a laboratory setting. In addition, McCloy's Block Test, Thurstone's S Test, and selected anthropometric measures were utilized.

The subjects were 25 fencers and 25 non-fencers. The fencers were members of a varsity team, the non-fencers were from service classes. All were male volunteer college students. In comparing the fencers and the non-fencers, significant differences were found only in movement time and reaction time. The fencers were faster in movements of the arm.

Several research design problems can be identified in this study. The most significant of these is the increase in Type I error that

results from running many *t*-tests on dependent data. Even though the groups are independent, the investigator obtained 10 measures from each subject. These data are dependent, or correlated. By running a *t*-test for each measure, the probability can be reduced by applying a more conservative test. One of the simplest is Dunn's procedure (1961), in which the desired alpha level is divided by the number of *t*-tests being run. In Pierson's case, an alpha level of .05 is divided by 10, the number of variables upon which fencers and non-fencers are being compared. The computed value of *t*, then, would be compared with the critical value for 48° of freedom and an alpha level of .005. This critical value is 3.352. When compared with the *t*-value for reaction time differences in Pierson's study, reaction time is no longer significant. The movement time difference remains significant, even with the more conservative test. If an alpha level of .01 were chosen initially, the critical value using Dunn's procedure would be 4.023, and none of the differences are significant. Several other design problems will be discussed later.

Differences in Performance from Variations in the En Garde Position

An interesting study by Mastropaolo (1959) compared nine variations from the classical en garde position. Only one subject was used in the major phase of the study because the movement patterns of this subject did not differ significantly from those of three other fencers. However, performance scores might have varied across subjects; therefore, results based on a single subject must be viewed with caution.

The measurements recorded were time, horizontal displacement, accuracy, force, and balance. Reliability estimates were computed for selected data recorded from three variations of the en garde position. The measures were not specified.

In analyzing the data, we are again faced with the problem of committing a Type I error. Many measures were taken on a single fencer from nine positions, and a large number of *t*-tests were run. Thus, the number of significant *F*-values will be inflated. Because of insufficient information, the results cannot be reevaluated as was done in the Pierson study.

The results of this study indicated that performance from each of five variations from the classical en garde position is superior to performance from the classical en garde. The use of only one subject and the possibility of increasing Type I error suggest that these results need to be reexamined.

Personality Traits of Women Fencers

The subjects for this study were 30 women participants in the 1968 AFLA National Championship. They ranged in age from 18 to

over 40. Two measures of personality were used: Edward's Personal Preference Schedule (EPPS) and Cattell's 16 Personality Factor Questionnaire (16 PF).

The most useful information from this study consists of the profiles of women fencers on the two tests. When compared with the national collegiate norms, it was found that the fencers differed from the collegiate sample on several dimensions, notably need for achievement, creativity, independence, intelligence and self-sufficiency. They were above-average on these dimensions, but tended to be less outgoing than the normative group. The fencers' profile was closest to those of male and female competitive race drivers and to women athletes at the Pan-American games in 1959.

The study included a comparison of low level achievers and top level achievers. The low level achievers were 12 fencers who were eliminated in the preliminaries; the top level were those who qualified for the semifinals. Again, many *F*-tests (approximately 38) were run, and the risk of Type I error was greatly increased. Without applying more conservative procedures but simply using an alpha of .01 to be slightly more conservative, the only measure (need for achievement) that was statistically significant is no longer significant. In addition, the unequal sample size decreases one's confidence in the robustness of the *F*-test should the population not be normal.

Recommendations for Future Research

Researchers interested in fencing can easily find worthwhile aspects of the sport to study. Several points that may be helpful in designing studies are given below.

1. *Sampling.* When the investigator wishes to compare (e.g., fencers and non-fencers), the sample size should be estimated using an appropriate procedure, such as the one described by Hays. An additional problem is justifying that the two groups, fencers and non-fencers, are drawn from the same population. Also, if parametric statistics are used and there is any doubt that the population is normally distributed, the cells should contain equal numbers of subjects.
2. *Analysis of Data.* Many variables should be examined in attempting to predict success in fencing. One major criticism of most research in other sports is that too few variables have been measured. Studies including many variables will require multivariate statistical analyses. When the data are in metric form, techniques such as multivariate analysis of variance, multiple discriminant analysis, factor analysis, or profile analysis might be useful. For non-metric data, multidimensional scaling or cluster analysis can be applied.

3. *Measurement of Variables.* When the investigator uses a psychological measure, the validity and reliability of the instrument should be discussed in the research report. In many cases, there are several available measures of a given attribute, each validated on different grounds. Thus, the justification for selecting an instrument is important. The test should be administered in a controlled setting. If the athlete is allowed to take the test form to fill out at her convenience, too many external variables can affect her response. No athlete should be allowed to participate in a study until she has signed an informed consent form.

References

- Dunn, O.J. 1961. Multiple comparisons among means. *Journal of American Statistical Association* 56: 52-54.
- Ketlinski, R. and Pickens, L. Dec. 1973. Characteristics of male fencers in the 28th annual NCAA fencing championships. *Research Quarterly* 44:434-439.
- Mastropaolo, J.A. 1959. Analysis of fundamentals of fencing. *Research Quarterly* 30: 285-291.
- Pierson, W.R. 1956. Comparison of fencers and nonfencers by psychomotor, space perception and anthropometric measures. *Research Quarterly* 27:90-97.
- Singer, R.N. 1968. Speed and accuracy of movement as related to fencing success. *Research Quarterly* 39:1080-1083.
- Williams, J.M. et al. 1970. Personality traits of champion level female fencers. *Research Quarterly* 41:446-453.

Editor's Note: James R. White, Ph.D., conducted a study at the 1973 AFLA championships in Tucson, Arizona to measure personality, food and nutrition habits, life style, exercise programs, strength, agility, reaction time and speed of movement, percent of body fat, cardiovascular health and general level of physical fitness. The results of the study have been reported in *American Fencing*, vol. 25, March-April 1974, pp. 8-10.

Athletic Dueling*

EMIL STANLEY SAINT PELLICER

Emil Stanley Saint Pellicer is the president of the Stanley Pellicer Conservatoire in St. Louis, Missouri.

In centuries past, sword dueling took the lives of thousands of men, mostly the elite. Eventually governments outlawed all duels. Although the introduction of gunpowder curtailed the need for swords, men had been dueling for centuries and wanted to continue doing so. But how could dueling be done safely and legally? The introduction of the mask and later the helmet, the blunting of the blades and the use of lighter, non-cutting swords created a stylized form of fighting — fencing. The rules that were devised, however, removed the realism of dueling. Many duelists did not adapt to the fencing rules and soon participation in the sport decreased.

Athletic dueling, as devised by the author, is an attempt to return to nature — to the real duel as it was encountered at the drop of a hat or a glove in centuries past.

Boys and girls have always romanticized dueling with mental pictures that took them down staircases and around courtyards of old castles. It would be easy to have them participate safely in athletic dueling in a modern manner, with the added flair of the actual weaponry of medieval times.

Actual duels were actively fought in all directions. The ability to change direction resulted in exciting moves and situations that a forced back and forth mobility could not give. Other combative sports such as karate, judo and wrestling are actually fought in the round.

Experimentation with various shapes and sizes indicated that the circle seemed to be the answer. Ten feet was the average length measured from the back foot of a duelist who had his arm extended in the lunge position, to the tip of his weapon. The diameter was then devised to be 20 feet (or six meters for international use). The need for an inner demarcation became obvious. Without it we could not make students lunge, and electronic wires might entangle.

The athletic dueling code was devised as we progressed in our research and experiments. The code had to be logical and acceptable.

The duelists needed no adaptation to the inner demarcation. They often lunged with one foot across but seldom crossed with both feet. A real duel would involve obstacles. The circle was used as

*This article is included in the *Guide* to acquaint teachers and students with a type of fencing that is not widely known but may be of historical interest.

the boundary and the obstacles would be the rules to keep duellists inside the boundary.

One foot completely out scores half a point for the opponent; two feet out, one full point. A point can be scored even though the scorer's foot touches the inner demarcation. If the other foot passes after that, the point is still valid. When a duelist enters the opponent's side of the dueling terrain in such a way as to force the opponent to step out, the opponent is not penalized. No penalties exist for crossing the inner demarcation as this is already unfavorable to duellists. But should it happen that a duelist is touched and steps out, the resulting score may be one and one-half points, or even two points.

The law of nature--"who is touched first, is touched first"--is observed and the new electronic equipment can determine who is so touched. The scoring can be "sudden death," that is, one single point; 5 points; 10 points; and 20 points for doubles as four duellists can duel simultaneously. Rules are the same for women and men, and both can compete with and against each other in all weapons.

In the small sword the valid target area is the front of the body and the back torso. The dueling épée, the dueling rapier and dagger, and the dueling rapier and shield use the entire body as target. The dueling sabre has as targets the front and back torso including the arms and head.

The introduction of dueling with the dueling rapier and the choice of the dagger or shield (all electrified) has added a new dimension to dueling. The realism seekers, theatre departments and sportsmen in search of new forms of athletic expression have welcomed this method. The American Athletic Dueling Association (AADA) publishes the Athletic Dueling Code with details on all facets of this American sport. For information, you may contact John H. Culling, president, AADA at 2101 South Kingshighway, St. Louis, MO 63110, or this writer at 6317 Clayton Road, St. Louis, MO 63117.

Advancing to Avoid Retreating

MARY HEINECKE

Mary Heinecke is an associate professor of physical education at Lawrence University, Appleton, Wis. She received her B.A. degree from Valparaiso University, Valparaiso, Ind., and her M.Ed. from Miami University, Oxford, Ohio. She was the Wisconsin State Open Fencing Champion for the past six years and was nationally ranked in 1968 and 1969. She is the coauthor of a book, Fencing, with Max Garret for Allyn Bacon, published in 1971.

Two important moves in fencing have been made recently that auger optimism for the future of fencing and should benefit all students and teachers.

The United States Academy of Arms was established at the March 1974 annual meeting of the National Fencing Coaches Association of America (NFCAA). Membership is open to all accredited fencing masters of which there are approximately 75 in the United States, all of whom are members of the parent organization, the NFCAA. The newly organized group "resolves to improve, promote and foster the highest quality of fencing and the highest ideals of sportsmanship in the sport of fencing." Its goals will be carried out in congresses and competitions with fencing masters all over the world, through defining and establishing the criteria of fencing education in colleges, through setting standards for teaching accreditation, and through acting as an advisory body to amateur groups and associations.

The American Fencing Academy opened its doors the fall of 1974. It is the only school of its kind in the United States. The two-year, six trimester program has been based upon identical curricula given in the European fencing masters' schools.

The courses will deal in all aspects of fencing theory in the three weapons and will cover such areas as armory and administrative organization. The courses will follow a progression to develop students through the various levels of teaching competency, from instructor to provost and finally, master. Classes are being held temporarily at Cornell University, Ithaca, New York.

Upon graduation, students will have an opportunity to take simultaneously the American Academy Master's Examination and the American Academy of Arms Accreditation Examination.

For additional information about the curricula, application, standards, fees, etc., contact Maitre Raoul Sudre, 5 Westwood Knoll, Ithaca, NY 14850.

Fencing Bibliography

BARBARA J. HOEPNER
University of California
Berkeley

Books

- Amateur Fencers League of America. *Fencing Rules and Manual*, 1970. Order from Irwin F. Bernstein, Secretary, AFLA, 249 Eton Pl., Westfield, NJ 07090.
- Bower, Muriel and Mori, Torao. *Fencing*. 2d ed. Dubuque, IA: Wm. C. Brown Co., 1972.
- Castello, Hugo and Castello, James. *Fencing*. 1962. Available from Castello Fencing Equipment Co., 836 Broadway, New York, NY 10003.
- Crosnier, Roger. *Fencing With the Electric Foil*. Cranbury, NJ: A.S. Barnes, 1961. Available from American Fencer's Supply, 2122 Fillmore St., San Francisco, CA 94115.
- Curry, Nancy L. *Fencing*. Pacific-Palisades, CA: Goodyear Publishing Co., 1969.
- Garret, Maxwell R. and Heinecke, Mary. *Fencing*. Boston: Allyn & Bacon, 1971.
- Geraci, A. John. *Fencing*. In *Modern Physical Education*, edited by Gerald J. Hase and Irwin Rosenstein. New York: Holt, Rinehart & Winston, 1966.
- Moody, Dorothy L. and Hoepner, Barbara J. *Modern Foil Fencing - Fun & Fundamentals*. Oakland, CA: B&D Publications (6645 Heather Ridge Way, Oakland, CA 94611) 1972.
- Palfy-Alpar, Julius. *Sword and Masque*. Philadelphia: F. A. Davis Co., 1967.
- Wyrick, Waneen. *Foil Fencing*. Philadelphia: W. B. Saunders, 1971.

Periodicals

- American Fencing*. Bimonthly. Order from Irwin F. Bernstein, Secretary, Amateur Fencers League of America, 249 Eton Pl., Westfield, NJ 07090. \$3 annually.
- The Swordmaster Newsletter*. Quarterly. Order from Alfred R. Peredo, President, National Fencing Coaches Association of America, Hatfield Rd. RFD #1, Mahopac, NY 10541. \$3 annually.

Fencing Visual Aids

BARBARA J. HOEPNER
University of California
Berkeley

- Basic Training of Foil Fencing.* 16mm, sound, b&w, 22 min. Sale \$135. Rent \$12. Prepared by the Hungarian College of Physical Education in Budapest. Presents fundamentals from en garde position illustrating advance, jump-lunge, distances, parries, ripostes and various engagements in slow-motion, still and trick shots. Order from University of California, Extension Media Center, 2223 Fulton St., Berkeley, CA 94720.
- Beginning Fencing.* 35mm, sound/silent, color, accompanying sound record. Sale, sound, \$51.75, silent \$46.25. Rent \$3. Covers introduction, equipment, elementary offense and defense, strategy and tactics. Prepared by Maxwell Garret. Order from Society for Visual Education, 1345 W. Diversey Parkway, Chicago, IL 60614.
- Directing Electric Foil.* ½" SONY videotape, sound, b&w. Sale \$30. Rent \$10. Prepared by Emily B. Johnson. Thirty minutes of action, interpretation and discussion of rules with Maxine Mitchell directing, Michael Dasaro commenting, and Carl Borak and Harriet King demonstrating. Order from Emily B. Johnson, 1250 Ellis St., Apt. 11, San Francisco, CA 94109.
- Fencing - 1964 Olympics - Tokyo, Japan.* 16mm, silent, b&w. Rent \$5. Covers men and women training, complete competitive bouts of world's best fencers, plus victory ceremony. Order from AFLA, 249 Eton Pl., Westfield, NJ 07090.
- Fencing With the Foil.* Super 8mm, color, cartridge loops. Sale \$18.95 per loop or complete set of 19 for \$342. Prepared by Michel Alaux, 1968 U.S. Olympic foil team coach; Michael Gaylor, 1967 NCAA foil champion; and Anne Seppala, 1969 captain, Hunter College fencing team. Order from The Athletic Institute, 805 Merchandise Mart, Chicago, IL 60654.
- Foil Fencing: Directing and Judging.* 16mm, sound, color, 33 min. Sale \$350. Rent \$24.95. Prepared by Sue Pernice as part of her doctoral dissertation. Provides basic criteria for practice in directing and judging. Order from Audiovisual Center, University of Iowa, Iowa City, IA 52240.
- Foil Fundamentals.* 16mm, silent, b&w. Rent \$5. Covers salute, en garde, footwork, attacks and parries, with interspersed descriptive titles by George Santelli. Order from AFLA, 249 Eton Pl., Westfield, NJ 07090.

Modern Foil Techniques. Super 8mm, color, cartridge loops. Sale \$22 per loop or complete set of 20 for \$380. Prepared by Charles A. Selberg, world masters foil team champion. A study guide accompanies each loop. Subjects progress from grip and en garde to balestra and attacks into tempo. Order from Bill Snyder Films, P.O. Box 2784, Fargo, ND 58102, or from American Fencer's Supply, 2122 Fillmore St., San Francisco, CA 94115.

Omnibus. 16mm, sound, b&w. Rent \$5. Prepared by the Ford Foundation in 1956 for television. Suitable for general audiences to arouse interest in all types of fencing. Order from AFLA, 249 Eton Pl., Westfield, NJ 07090.

NAGWS OFFICIATING SERVICES

Through its standing committee on Officiating Examinations and Techniques, The National Association for Girls and Women in Sport (NAGWS) provides materials for the training and rating of officials in ten sports to meet the needs of various levels of sports events.

Approximately 185 boards of officials throughout the U.S. are affiliated with NAGWS through an organization of affiliated boards called the NAGWS Affiliated Boards of Officials. These boards provide opportunities for interested individuals to learn about officiating or judging and are authorized to give NAGWS ratings.

The Officiating Examinations and Techniques Committee includes the P and T of O (Principles and Techniques of Officiating) Chairmen. These individuals are specifically concerned with enumerating the mechanics used by referees, umpires, and judges in officiating games, meets or matches.

The Officiating Examinations and Techniques Committee also includes an E and R (Examinations and Ratings) Chairman for each sport in which ratings are given. Each Chairman and her committee are responsible for preparing, revising, and analyzing the officiating theoretical (written) examinations.

If you have questions concerning the techniques of officiating fencing, write to:

DENISE O'CONNOR
21A West 35th Street
Bayonne, NJ 07002

Information regarding study questions in this fencing *Guide* or on the theoretical examinations on fencing should be addressed to:

KIT BOESCH
Ohio State Univ.
Columbus, OH 53210

STANDARDS FOR OFFICIALS RATINGS

Badminton, Basketball, Competitive Swimming, Fencing, Softball, Tennis, Track-Field, and Volleyball

There are six ratings for officials, five of which qualify the holder to officiate sports contests. Each is designed to meet the needs of various sports events and to stimulate interest of individuals who desire to officiate.

The *Examiner's rating* signifies the holder is qualified to rate officials.

The *Intramural rating* qualifies the holder to officiate contests in the school in which she is enrolled or contests of comparable level.

The *Apprentice rating* qualifies the holder to officiate contests which may be adequately controlled by a competent, but inexperienced official.

The *Local rating* signifies that the holder is qualified to officiate interscholastic and intercollegiate contests requiring a competent and experienced official.

The *State rating* signifies that the holder is capable of officiating any contest within the state or region where the rating is awarded.

The *National rating* signifies that the holder is capable of officiating any contest anywhere in the United States. This rating is for the most highly skilled official.

Specific requirements for all ratings are outlined below.

Examiner

1. Prerequisite -- must have held a state or national rating for a minimum period of six years. (The six years need not be consecutive but must be within the previous eight-year period.)
2. Theoretical examination -- national examination, minimum 82.
3. Duration -- two years from next June 1.
4. Renewal:
 - a. In order to be eligible for renewal, the candidate must have been involved in the rating or training of officials.
 - b. To renew, the candidate must pass the national theoretical examination with a minimum score of 82.
 - c. Should the rating lapse for one year or less, the candidate remains eligible for renewal.
 - d. Should the rating lapse for more than one year, the candidate must qualify through earning a State rating.
5. This rating is transferable to other Boards.

Intramural Official

1. Minimum standards -- set by Affiliated Board.
Duration -- two years from next June 1.

Apprentice Official

1. Minimum standards can be set by the affiliated board, *or* these standards may be followed:
 - a. Minimum grades – average of theory and practical, 75 (exception: fencing, average 76).
 - b. Theoretical examination – national examination, minimum 74.
 - c. Practical examination¹ – minimum 75; minimum number of raters: one.
2. Duration – Two years from next June 1.

Local Official

1. Minimum grades – average of theory and practical, 80 (exception: fencing, 82).
2. Theoretical examination – national examination, minimum 76 (exception: fencing, minimum 82).
3. Practical examination¹ – minimum 80; minimum number of raters: two (exception: fencing must be administered by 3 raters, minimum 82).
4. Duration – two years from next June 1.
5. This rating is transferable to other Boards.

State Official

1. Minimum grades – average of theory and practical, 85 (exception: fencing, minimum 86).
2. Theoretical examination – national examination, minimum 82 (exception: fencing, minimum 86).
3. Practical examinations
 - a. Practical examination¹ – minimum 85; minimum number of raters: three (exception: fencing, minimum 86).
 - b. Alternate plan for basketball, softball, competitive swimming, or volleyball – after holding a State rating with the same board for four consecutive years, the official may request that seven different coaches evaluate her officiating (see appropriate sports packets for details), in lieu of the practical rating session.
4. Duration – two years from next June 1.
5. This rating is transferable to other Boards.

¹Persons holding a State, National, Honorary National, or Examiner's rating, are qualified to rate. Any rating team may include no more than one Examiner.

National Official²

1. Minimum grades -- average of theory and practical, 88 (exception: fencing, minimum 90).
2. Theoretical examination -- national examination, minimum 88. (exception: fencing, minimum 90.)
3. Practical examinations
 - a. Practical examination¹ -- minimum, 88; minimum number of raters: three, one of whom must hold a National rating. (exception: fencing, minimum 90.)
 - b. Alternate plan for basketball, softball, competitive swimming, or volleyball -- after holding a National rating with the same board for four consecutive years, the official may request that seven different coaches evaluate her officiating (see appropriate sports packets for details), in lieu of the practical rating session.
4. Duration -- two years from next June 1.
5. This rating is transferable to other Boards.

PROCEDURES FOR ESTABLISHING FENCING RATINGS

1. The committee will establish standards for fencing ratings, draw up both the practical and theoretical examinations and will write up the techniques of officiating.
2. Clinics for fencing officials (directors) were set up for the summer of 1974. At the national AAHPER convention in Minneapolis in April, 1973, attempts were made to contact persons who would be able to set up directors' clinics for training and rating purposes. Attempts will be made to obtain academic credit for these clinics from the host institution.
3. In order to obtain affiliated board status for granting fencing ratings initially, the names and qualifications of three persons must be submitted to the chairman of the E & R Fencing Committee. Those persons, if approved by the committee, will be required to take the written examination and will be permitted to grant ratings on the basis of the grade they receive on the examination.

²Commencing June 1, 1975, National volleyball ratings can only be awarded by the National Volleyball Rating Team. Comparable procedures will apply to basketball commencing June 1, 1976. An evaluation of this procedure may result in Nationals in other sports being awarded only by National Rating Teams. Criteria for identifying raters, conditions for rating, and practical examination evaluative techniques will be developed by study committees. The duration of this National rating will be four years.

The committee may approve persons whose names are submitted by boards on the following bases:

- a. The director classification held by that person in the Amateur Fencers League of America *or*
- b. Personal observation of the person's directing ability *or*
- c. Practical examination of the person by a person appointed by the committee.

Levels of ratings for gymnastics and synchronized swimming are:

<i>Gymnastics</i>	<i>Minimums</i>	
	<i>Theoretical</i>	<i>Practical</i>
National	90	90
Regional	80	80
State	70	70
Associate	60	60
Apprentice	50	50

Duration: Until December, 1976. Must judge three meets per year or a total of six meets within a two-year period to maintain status.

<i>Synchronized Swimming</i>	<i>Minimums</i>	
	<i>Theoretical</i>	<i>Practical</i>
National	90	85
Regional	80	75
Local	70	65

Recommended Fees³

These fees are minimum fees recommended by the Executive Board as a guide to Affiliated Board. These boards may set fees lower or higher than those suggested when the local situation demands an adjustment from the recommended fees. The Intramural and Apprentice fees should be set by each Affiliated Board. The fee for an Apprentice Official should not exceed that for a Local Official and should reflect the difference in the level of rating.

³ Recommended Fees -- Effective June 1, 1975:

Basketball, Fencing, Softball, Track-Field, and Swimming Referee:

National (Awarded by National Rating Team): \$25.

State or National awarded by Affiliated Board: \$15.

Local: \$12.

Badminton and Volleyball:

National (Awarded by National Rating Team): \$20.

State or National awarded by Affiliated Board: \$12.

Local: \$9.

Basketball and Softball

National – \$12 plus traveling expenses for a single game. If only one official is used, the fee should be \$24 plus traveling expenses.

State – \$9 plus traveling expenses for a single game. If only one official is used, the fee should be \$18 plus traveling expenses.

Local – to be established by affiliated board until new recommended fees become effective June 1, 1975.³

Badminton and Volleyball

National – \$9 plus traveling expenses for a single match. If only one volleyball official is used, the fee should be \$18 plus traveling expenses.

State – \$7 plus traveling expenses for a single match. If only one volleyball official is used, the fee should be \$14 plus traveling expenses.

Local – to be established by affiliated board until new recommended fees become effective June 1, 1975.³

Gymnastics

National – \$10 per session, transportation, and \$15 per diem.

Regional – \$7.50 per session and transportation.

State – \$7.50 per session and transportation.

Swimming. The recommended fees for Nationally rated swimming officials are:

When there are three officials: \$6 plus traveling expenses per official for a single meet (whether dual or group); \$9 plus traveling expenses per official for meets with first and second teams participating.

Where there are fewer than three officials: \$9 plus traveling expenses per official for a single meet (whether dual or group); \$12 plus traveling expenses per official for meets with first and second teams participating.

Dual meets: Pay referee and starter \$15. Turn judge, if paid, \$10.

Tennis. In compliance with the United States Lawn Tennis Association policy, no fees will be charged for officiating tennis matches, although travel expenses may be accepted.

Track and Field. It is customary for one official to be paid a minimum of \$9 per session (a session shall be defined as a period of time approximately three hours in length) plus traveling expenses. In the case of shorter sessions, fees should be adjusted accordingly. When possible, other officials may be paid.

REGISTRATION OF OFFICIALS

A number of states require those who officiate either boys' or girls' interscholastic contests to be registered with the State High School Athletic Association or other administrative body. Holding a NAGWS rating ordinarily does not exempt an official from complying with this regulation.

All NAGWS officials who officiate any high school or junior high school games are urged to cooperate fully with their state regulatory body by registering with the proper organization and paying any required fee, by wearing the official emblem in addition to the NAGWS emblem, and by complying with all requirements for sports officials.

AMATEUR STANDING OF OFFICIALS⁴

An official who wishes to maintain her amateur status as a participant in a sport must be aware of the ruling(s) on amateur status established by the governing body for that sport.

Amateur status may be defined by groups governing high school and college level competition. National organizations governing amateur competition may also have established rulings on the amateur status of the participant.

The official who wishes to maintain her status as a participant is responsible for investigating the specific regulations of the governing body that has jurisdiction over her eligibility as a participant.

Amateur Standing in Basketball, Track and Field, and Swimming

According to the Amateur Athletic Union, which has jurisdiction over amateur basketball, track and field, and swimming, any person receiving compensation for officiating in any sport renders herself ineligible for further amateur competition.

An official, without jeopardizing her amateur standing, may request, receive, or accept expenses in connection with her participation in any event which shall not exceed (a) her actual expenditures for travel (eight cents per mile or first class public transportation fare) and (b) her actual expenditures for maintenance up to a non-itemized total of \$10 per day.

⁴For more complete details, see *JOPHER* 39:24-27, October 1968.

Amateur Standing in Softball

The Amateur Softball Association has taken the position that umpires who officiate softball games and are paid for their services do not professionalize themselves and are thereby eligible to participate in ASA competition.

Amateur Standing in Volleyball

According to the United States Volleyball Association, volleyball officials may get only transportation, meals, and lodging and may receive no honorarium if they wish to retain their amateur standing.

HOW TO BECOME A RATED OFFICIAL

1. Study the rules, the article on the techniques of officiating, and the study questions.
2. Attend interpretations meetings and officiating clinics or training courses conducted in your vicinity.
3. Practice often. To some, officiating comes easily; to others it comes only as the result of hard work and concentration. Welcome criticism and work hard to improve.
4. Find out from the chairman of the nearest affiliated or provisional board when examinations for ratings are to be held. (Consult list of boards in NAGWS Directory available from: NAGWS/AAHPER, 1201 Sixteenth St., N.W., Washington, DC 20036).
5. Contact the chairman of the nearest affiliated or provisional board for materials necessary to give Intramural ratings.
6. Remember that it is the aim of the Affiliated Boards of Officials to maintain a high standard for National officials. Do not be discouraged if you do not receive a State rating on your first attempt. Welcome suggestions from the examiners, practice more, and try again.

INFORMATION FOR AFFILIATED AND PROVISIONAL BOARDS

An *affiliated* board is authorized to give ratings at all levels in that sport.

A *provisional* board is a board which has at least three Apprentice officials in a given sport; it is authorized to give ratings at the Intramural and Apprentice levels in that sport.

Exceptions: When rating films are used as a medium for the practical rating (synchronized swimming and gymnastics), boards may award ratings at any level.

An Officiating Board may have *affiliated* status in one or more sports and/or *provisional* status in one or more sports. When a Board has *affiliated* or *provisional* status in a sport and wishes to have affiliated and/or provisional status in another sport, that board should write the Examinations and Rating (E.&R.) Chairman of the respective sport. The board should indicate the names of a minimum of three persons qualified to act as examiners in that sport for the next two years. Qualifications and experience in the sport should be listed for each examiner.

NOTE: For basketball and volleyball an examining committee of three persons holding State, National, Honorary National or Examiner's ratings is required. No specific number of rated officials is needed to initiate ratings in Badminton, Gymnastics, Softball, Swimming, Synchronized Swimming, Tennis, and Track and Field.

If, after two years, a board does not have three State officials in a sport, the board loses its affiliated status for giving ratings in that sport. (Exceptions: gymnastics and synchronized swimming.) The board may then request provisional status in that sport from the E.&R. Sports Chairman. If granted, the board may continue to exist with provisional status and award only Apprentice and Intramural ratings. To continue as a provisional board after two years the board must have a minimum of three officials with at least an Apprentice rating in each sport concerned.

Examination packets are mailed to qualified boards on:
August 1 - Volleyball and Basketball
September 15 - Swimming, Badminton, Tennis
October 15 - Synchronized Swimming, Gymnastics
February 1 - Softball and Track and Field

Emblem and Uniform

The emblem for National officials in all sports consists of a shield. Other emblems are available for State, Local, Apprentice, and Intramural officials.

The official shirt for badminton, basketball, fencing, competitive swimming, tennis, track and field, and volleyball is a navy blue and white striped tailored shirt or a navy blue and white striped jersey. The shirt for softball shall be navy blue. A navy blue skirt, shorts or slacks appropriate for the activity should be worn with the shirt. In badminton, fencing, swimming and tennis white may be substituted for the navy blue. A navy blue blazer may complete the uniform if desired. Officials who receive fees for officiating are required to wear the official shirt.

The official shirts and emblems are available from The Hanold Company, Sebago Lake, Maine 04075. The company can also

provide approved blazers. When ordering, send dress size and check or money order for correct amount. Anyone may order the official shirt. A current rating card must accompany an individual's order for an emblem; however, it is not necessary to send a rating card when ordering a shirt.

An affiliated board may wish to have a supply of shirts or emblems for distribution to newly rated officials. A quantity order may be placed *only* by the affiliated board chairman. It is not necessary that the chairman enclose her own rating card, but full payment must accompany the order.

Prices: Wash-and-wear shirt, \$7.00; knit jersey with zipper neck, \$10.50; navy flannel blazer, \$35.00; National, State, Local, Apprentice, and Intramural emblems, \$1.75.

Shipping Charge: 75 cents per order.

HOW TO ESTABLISH A BOARD OF OFFICIALS

1. Establish the need for an affiliated board by contacting women in the area who have current ratings or who are interested in standardizing and raising the level of officiating badminton, basketball, competitive swimming, fencing, gymnastics, softball, synchronized swimming, tennis, track and field, or volleyball in that area.
2. Write to Mary Bell, Chairperson of the NAGWS Affiliated Boards of Officials, Women's Physical Education, Northern Illinois University, DeKalb 60115, for a sample copy of an authorized constitution for officials' boards and the *Policies and Procedures Handbook* and application for becoming an affiliated board.
3. At a designated meeting of interested women, present plans for forming a board.
 - a. Choose a name which will permit expansion of function as need may arise; do not limit title to one sport.
 - b. From the group, elect a chairman, chairman-elect, secretary, and treasurer.
 - c. Form an examining committee of at least three members. If any member has been rated elsewhere, her experience should be helpful; such a rating is not necessary, however, except in basketball and volleyball. (See 4 below.) It is suggested that members of the examining committee be examined and obtain ratings from other affiliated boards whenever possible.
 - d. Make plans for drawing up a constitution according to the sample copy received from the chairperson of the NAGWS Affiliated Board of Officials. Plan to devote some time to

the study of the rules and to practice officiating. If possible, secure the assistance of some rated official in each sport for which the Board anticipates giving ratings.

4. Send to the chairperson of the Affiliated Boards of Officials the completed application form, two copies of the local constitution, and a check for \$5 annual dues (made payable to the NAGWS Affiliated Boards of Officials). If *basketball or volleyball* ratings are to be given, an affiliated board must send a list of three persons holding a State, National, Honorary National or Examiner rating, and a provisional board must send a list of three persons, one of whom must hold at least a State rating. (Include photostatic copies of current rating cards.) A list of three interested women must be sent if the board wishes to give ratings in sports other than basketball or volleyball. If, at the end of two years, a board wishes continued affiliated status in any sport, it will be required to have a minimum of three persons with State, National, Honorary National, or Examiner ratings. (Exception: Gymnastics and Synchronized Swimming.) For continued provisional status, a board will be required to have a minimum of three officials with at least an Apprentice rating. Approval of the application will come from the chairperson of the Affiliated Boards of Officials who will request that examination packets be sent to your Affiliated Board Chairman for all sports in which your Board is authorized to give ratings. The process of accepting an application for affiliation of a new Board and of requesting that the proper examination packets be sent ordinarily takes several weeks. Prospective Boards, therefore, should file for affiliation at least a month before they wish to hold rating sessions.
5. Administer Form A of the National Theoretical Examination. Form B of the National Theoretical Examination may be administered to those who did not pass Form A. The Intramural Examination may only be given to those candidates pursuing Intramural or Apprentice ratings. Once the Intramural Examination has been administered, the candidate forfeits her option to take either Form A or Form B.
6. To cover expenses involved in the construction and evaluation of written examinations, boards should charge a fee each time an individual takes a written examination. The Affiliated Boards of Officials Treasurer must receive 50 cents for each written examination given by a board. Board fees can exceed 50 cents per test in order to cover operating expenses.
7. Conduct practice sessions in rating officials. All persons on the examining committee who have not previously rated officials should have a minimum of three practice sessions prior to

actually rating. Secure the assistance of a rated official in these practice sessions if at all possible.

8. Give practical examinations to individuals who pass the written examination. (Note minimum number of raters required to give various ratings on page 128.)
9. Request appropriate rating cards from the NAGWS National Office for distribution to those who pass the theoretical and practical examination.
10. Send lists of approved officials to schools and other organizations in the area. This notice should indicate the fees for officiating and should give the name, address, rating, and telephone number of each official.
11. Keep accurate lists of all persons receiving ratings. Forward these lists to the chairmen of the Examinations and Ratings Committees in those sports in which your Board was authorized to give ratings.

Fencing Study Questions 1975-77

KIT BOESCH

Kit Boesch is currently on the physical education faculty at Ohio State University, Columbus, where she coaches the fencing team. She received her B.S. degree at the University of Wisconsin-LaCrosse and her M.S. degree at Ohio State. She has been a fencing competitor and has worked with the junior development fencing program in Wisconsin. She has just become NAGWS Fencing Examinations and Rating Committee chairman.

PART I

Directions

Select the best answer from those listed below. Only one answer is correct.

1. What is the correct time for a bout?
 - A. Four minutes with an additional one-minute warning.
 - B. Five minutes with an additional one-minute warning.
 - C. Six minutes with an additional one-minute warning.
 - D. No particular time requirement.
2. What is fencing time?
 - A. The time allowed for total duration of a bout.
 - B. The first four minutes of a bout.
 - C. A fixed interval of time within which the first two touches must be scored.
 - D. The time required for the execution of a simple fencing action.
3. Which areas are included in the valid target?
 - A. Bib-arms-torso.
 - B. Arms-neck-back.
 - C. Neck-torso-back.
 - D. Bib-neck-torso.
4. What is the term for a simple and immediate offensive action, following the original attack, without withdrawal of the arm?
 - A. Simple attack.
 - B. Reprise.
 - C. Redoublement.
 - D. Remise.

5. What action follows the command "fence?"
 - A. Fencers acknowledge they are ready.
 - B. Fencers should anticipate the command "go."
 - C. Fencers are required to commence fencing.
 - D. Fencers may begin fencing.

6. When may a bout be officially stopped?
 - A. When the director calls "halt."
 - B. When a fencer stamps her foot twice.
 - C. When a fencer raises her hand.
 - D. When a judge raises her hand.

7. When is a competitor given a time warning?
 - A. Every two minutes.
 - B. Only when she requests it.
 - C. One minute before expiration of the time limit of the bout.
 - D. Two minutes prior to expiration of the time limit of the bout.

8. If at the end of the time limit one fencer leads the other but neither has scored the required number of touches to win, what is the proper procedure?
 - A. It is called a "draw" and thrown out.
 - B. The score remains the same.
 - C. The leading fencer wins, but the difference in the actual touches remains.
 - D. They fence until one of them wins.

9. Who determines the validity of a hit?
 - A. The jury only.
 - B. The director only.
 - C. The director in consultation with the jury.
 - D. The bout committee.

10. Which is a pre-bout procedure for the director?
 - A. Announcing strip rosters.
 - B. Informing the audience about valid hits.
 - C. Supervising her assistants.
 - D. Beginning the stopwatch on the command "play."

11. Which would be a responsibility of the director?
 - A. Controlling the equipment.
 - B. Awarding hits.
 - C. Supervising the scorekeeper.
 - D. All of the above.

12. Where should a director position herself?
 - A. To best follow the fencing phases while still being able to see the light signals.
 - B. In the center of the strip.
 - C. In the center of the fencers.
 - D. Facing the audience.

13. What is the penalty for a fencer found with faulty equipment?
 - A. She will have it confiscated and returned after competition.
 - B. She is permitted to get working equipment but will be penalized one meter.
 - C. She is permitted to get working equipment but will be warned.
 - D. She must forfeit the bout.

14. What procedure should be followed if the competitor is a victim of an accident?
 - A. She must either continue or withdraw.
 - B. She may leave the strip for a maximum of 5 minutes and then return or forfeit.
 - C. She may be allowed to rest no more than 20 minutes.
 - D. She may wait until another bout is taken and then return to finish.

15. What procedure shall be followed in case of several indispositions?
 - A. The fencer is granted a 20-minute maximum rest period.
 - B. The director may grant a rest period of 10 minutes whenever deemed necessary.
 - C. The director may grant rest periods of 10 minutes only once during the same match.
 - D. The fencer shall be asked to forfeit the bout.

16. What is the proper procedure when a fencer crosses the lateral boundaries with both feet?
 - A. She is asked to leave the strip.
 - B. She is penalized a touch.
 - C. She is replaced on guard and penalized one meter.
 - D. She is warned not to do it again.

17. A fencer who has been warned, retreats off the end of the strip with two feet. What is the correct procedure?
 - A. She receives a touch against her.
 - B. She is placed on guard at the warning line.
 - C. She is placed on guard on the endline.
 - D. She is allowed to continue without penalty.

18. What action must the director take if corps à corps exists?
- A. Stop the bout immediately.
 - B. Get closer to the strip to observe all actions.
 - C. Let the bout continue until a touch is scored, and then warn the competitors.
 - D. Award touches against both fencers as a penalty.

PART II

Directions

Serving as the director, which is the ultimate decision you would make? Place the letter of the best response in the space provided on the answer sheet.

Indicate: A = yes
B = no
C = off target
D = abstain

- 19. Judges A and B say no; you say yes.
- 20. Judge A says yes; Judge B says no; you are uncertain.
- 21. Judge A abstains; Judge B says yes; you say no.
- 22. Judge A says off target; Judge B says yes; you say yes.
- 23. Judges A and B abstain. you abstain.

ANSWERS AND RULE REFERENCES

<i>Answer</i>	<i>NAGWS Guide</i>	<i>AFLA Fencing Rules</i>
1. A	Part one, Chapter VI, Section 11	Sections 45 and 225
2. D	Part one, Chapter III, Section C1	Section 9
3. C	Part two, Chapter IV, Section B1	Sections 220-221
4. D	Part one, Chapter III, Section C4	Section 13
5. D	Part one, Chapter VI, Section 5-1	Section 32
6. A	Part one, Chapter VI, Section 5-2	Section 32
7. C	Part one, Chapter VI, Section 11	Section 46
8. C	Part two, Chapter IV, Section D-a	Section 226
9. B	Part one, Chapter VII, Section B3	Sections 70 and 232
10. C	Part one, Chapter VII, Section A1	Section 53
11. D	Part one, Chapter VII, Section A1	Section 53
12. A	Part one, Chapter VII, Section B1; Tech. of Off., V-J-8	Sections 71-1 and 61
13. A	Part one, Chapter V, Section B-3	Section 21
14. C	Part one, Chapter VI, Section 12	Sections 50-51
15. C	Part one, Chapter VI, Section 12	Sections 50-52
16. C	Part one, Chapter VI, Section 10c	Section 43
17. A	Part one, Chapter VI, Section 10b	Sections 39-41
18. A	Part one, Chapter VI, Section 7	Section 34
19. B	Part one, Chapter VII, Section B-3-b	Sections 68-69
20. D	Part one, Chapter VII, Section B-3-b	Sections 68-69
21. B	Part one, Chapter VII, Section B-3-b	Sections 68-69
22. A	Part one, Chapter VII, Section B-3-b	Sections 68-69
23. D	Part one, Chapter VII, Section B-3-b	Sections 68-69

Techniques and Procedures for Officiating Women's Foil

DENISE O'CONNOR

The information set forth in this article is based entirely on the rules as listed in the 1974 edition of the *Fencing Rules* published by the Amateur Fencers League of America.

I Introduction

A. *The Article*

This article is not a substitute for the rules of fencing. It is presented as a guide to both Directors and Judges and attempts to clarify the functions of these officials.

B. *Definitions*

The definitions of fencing actions are explanatory and in no way modify the text of the rules as presented by the Amateur Fencers League of America, the governing body of fencing in the United States.

C. *The President of the Jury*

1. The President of the Jury shall be called the Director of the Bout.

2. The rules of fencing give the Director almost unlimited power to maintain order and discipline. With such power there is corresponding responsibility:

a. The Director's function is to provide an atmosphere in which the contestants and spectators can derive maximum enjoyment from the test of skill between two opponents. While she is an important requisite to competitive fencing, she must never forget that the contestants are the center of attraction. As long as the fencers conduct themselves properly, she should be as unobtrusive as possible while controlling the progress of the bout. When one or both of the fencers, or the audience, disrupts the proper conduct of the competition she should assert herself immediately and without equivocation.

b. The rules of discipline should be applied firmly, but when discretionary penalties are imposed, due allowance should be made for the tensions that normally prevail among contestants in the heat of competition. In brief, the code of good sportsmanship applies equally to both contestants and officials.

c. The calm, impartial, and confident handling of a bout

are attributes of a Director who inspires the confidence of the competitors. A hesitant, indefinite, and inconsistent official will lose the confidence and the control of the bout.

D. *The Rules*

It is the responsibility of the Director to **READ THE RULES** and to **KNOW THE RULES**.

E. *The Jury*

Members of the jury must remain impartial throughout the competition and judge each hit to the best of their abilities.

II *General Procedures*

A. Be certain of date, time, and site when accepting the fencing match.

B. If unable to keep the appointment, notify team officials at least 24 hours in advance. If less than 24 hours' notice is given because of an emergency, a substitute must be secured when requested by the team officials.

C. Do not cancel an appearance in order to officiate at another match more suitable to one's liking. This is considered unethical.

D. Wear the appropriate skirt, blouse, and shoes or the official uniform.

E. Arrive at the site of the competition 15 to 20 minutes before the scheduled start.

F. Introduce yourself to the coaches and other officials.

III *Before the Fencing Starts*

A. Check that the scoring table, team benches, and spectators are more than 8 feet from the side of the strip. If it is necessary to seat spectators behind the Director, seating should be arranged no closer than 9 feet from the Director or 18 feet from the strip. If judges are used, the scoring table and team benches must be at least 12 feet from the strip.

B. Inspect the strip and boundaries of the strip from the viewpoint of safety factors which might require special attention. Strip rules may be modified to insure safe fencing conditions.

C. Explain the strip rules to the captain of each team.

D. Explain their duties to the scorekeeper and timekeeper. (See Duties of Officials)

E. Check the timing device.

F. Check the scoresheet 2 minutes before the scheduled start of the competition to see that the names of the competitors are listed correctly.

G. Check the electrical apparatus including the machine, cables, reels, and, if used, the scoring device. If a technician is not available, this check may be accomplished by hooking up two fencers. Be certain the machine is registered for foil, not épée.

H. If judges are to be used:

1. Explain their duties.
2. Explain the method of replying to questions.
3. Assign positions.

I. Check each fencer for the proper uniform which includes the required under-arm plastron, masks and uniforms that conform to safety standards including the covering of the legs with stockings or with pants that fasten at the ankle. At no time should a fencer be permitted to compete if she is without the proper uniform necessary to fully protect her during the progress of the bout.

J. Explain the procedures of the bout to all concerned, the fencers, coaches, timers and scorers, and the judges.

IV Starting the Bout

A. Positioning the Officials and the Contestants

1. The Director stands opposite the scoring table about 8 to 12 feet away from the strip.

2. The judges maintain positions to the rear and 3 feet to the side of the fencer nearest them.

3. At the start of the bout, and after each touch has been awarded, the fencers should be put on guard with both feet behind the on guard lines. The fencers must always be put on guard in the center of the width of the strip, whether at the beginning of the bout or during the progress of the bout.

4. The fencer called first should place herself to the right of the Director, except in the case of a right- and a left-handed fencer, if the left-handed fencer is called first.

5. If one of the fencers is left-handed, she should place herself to the left of the Director. If only two judges are used, the Director should place herself so that she views the backs of both fencers while the judges are positioned so they see the front targets.

B. Calling the Contestants

The scorer will call each bout and the "On deck" fencers. If one of the fencers does not report to the strip when her name is called, wait 1 minute and repeat the call. If she fails to report to the strip within 1 minute of the second call, award the bout to her opponent. Record the score 4 - 0.

C. Testing the Equipment

1. At the beginning of each bout, and after each change in equipment, check the spring resistance of the foil with the foil weight.

2. Require each contestant to bring to the strip with her, two weapons in good working order and an extra body wire, also in good working order.

3. Each contestant will check the circuit and her equipment by pressing the point of the foil first on her opponent's off target and then on her good target area. Each contestant is to test her own equipment. Do not permit a contestant to hold the blade of her opponent's foil and do the testing herself on her own target.

V The Bout

A. Beginning, Stopping and Restarting the Bout

1. Before every command to fence, the Director must say, "On Guard," "Are you ready?" "Fence."

a. After the command "On guard," pause.

b. Both fencers must answer the question, "Are you ready?" If there is no answer after a pause, the Director assumes that the fencers are ready to fence.

c. The fencers may not initiate a move until the command "Fence" is given.

2. The command "Halt" stops the bout.

a. When one of the judges raises her hand.

b. When the machine registers a hit.

c. When the actions of the competitors are dangerous, confused, or contrary to the rules.

d. When one of the competitors is disarmed.

e. When one of the competitors crosses the boundary of the strip with either one or two feet.

f. When the timekeeper calls "Halt" at the end of 4 minutes and at the end of the 1-minute warning.

3. A contestant who stops the bout on her own does so at her own risk.

a. The sound of the machine does not stop the bout, only the command "Halt."

b. If the contestant stops the bout without the command "Halt" and a valid hit is scored, the touch is awarded.

c. A contestant must signal the Director of the Bout with an appell (tap twice on the strip with her front foot) to stop the bout.

d. If a judge sees a safety hazard, she may call "Halt" and the command should be recognized as a call in good faith.

4. Fencers return to the on-guard line after a touch has been awarded. When the command "Halt" is given, both fencers hold their ground until a decision has been awarded. If a valid hit has not been scored, both fencers are put on guard with each fencer retreating equally in order to attain fencing distance.

a. When the bout has been stopped as a result of corps a corps or close contact, the fencers are put on guard so that the fencer who sustained the corps a corps is at the place she previously occupied.

b. When a flèche has occurred, the defender holds her ground and the attacker is placed on guard at the proper fencing distance.

c. If a fencer is in front of a warning line at the time "Halt" is called, she must be placed on guard in front of the warning line if a warning has not been given.

d. If a fencer is behind the warning line when "Halt" is called, she must not be put on guard so as to lose ground.

B. Changing Positions in Non-Electrical Foil

1. After each valid hit is awarded, the competitors are put on guard behind the on guard lines and in the center of the strip. If the hit is not valid, the competitors are put on guard in the position they occupied when the fencing action was halted.

2. After one of the competitors has received 2 touches or half the maximum number of touches she can receive, the fencers shall change positions by crossing to the left of each other and shaking hands in the process.

3. If one of the fencers is left-handed, the competitors remain in their positions and the judges shall change positions, remaining on the same side of the strip as they started.

4. If the event is fenced outdoors, the competitors shall change positions after each touch is awarded.

C. Fencing at Close Quarters

Fencing at close quarters is allowed as long as the competitors can wield their weapons correctly and the Director can follow the phrase.

D. Corps à Corps

The corps à corps exists when the two competitors remain in contact; when this occurs, the Director must stop the bout. The fencers are placed on guard at equal distance from each other.

E. Ground Gained or Lost

When the command "Halt" is given, ground gained is held until a hit has been awarded. When competitors are replaced on

guard, each fencer should retire equally in order to attain fencing distance. (See V. The Bout, Section A, #4.)

F. *Crossing the Boundaries of the Strip*

The director must call "H. It" immediately when a contestant crosses one of the boundaries of the strip with either one or two feet.

1. Crossing the side with one foot.

a. When a fencer crosses the side boundary with one foot, the Director calls "Halt" and puts the offending fencer on guard in the center of the strip in the same position she incurred the fault.

b. Only a hit made by the fencer who remains on the strip can be counted as valid, even in the case of a double hit. However, if the fencer causing the infraction scores the hit as she is stepping off the side of the strip, the hit shall be counted as valid if it is in time.

2. Crossing the rear limits of the strip.

a. When the rear foot of a fencer crosses the warning line for the first time, the Director calls "Halt" and gives the meter warning.

b. When the offending fencer crosses the rear limits of the strip with both feet after the first warning has been given, the Director shall call "Halt" and award a touch against the offending contestant.

c. If the fencer has regained ground so that her front foot has reached the on guard line, the warning shall be repeated if she retreats to the on guard line again.

d. Contestants are not reminded of their position unless the proper distance has been regained.

e. If a fencer crosses the rear limits of the strip without having been warned, she is put on guard at the warning line and given the warning.

f. If having crossed the rear limit of the strip, the fencer who is attacked parries and makes an immediate riposte or makes a stop hit in time, such a hit shall be counted as valid. This rule will not apply to a fencer who crosses the rear limit of the strip for the last time.

3. A contestant may not leave the strip during the course of the bout unless she has the permission of the Director.

G. *Indispositions and Accidents*

1. If an indisposition occurs and has been duly recognized, the Director may grant the competitor a period of rest for a maximum time of 10 minutes once only during the same match (teams) or the same pool (individual) or the last 15 bouts by direct elimination.

2. If an accident occurs the Director allows the victim a period of rest once only and that for a maximum time of 20 minutes in order that she may recover sufficiently to continue the bout.

3. The Director of the Bout may on her own authority, require the withdrawal of a competitor whose physical inability to continue the bout is obvious.

H. Delaying the Bout

The Director may, during the progress of the bout, penalize by a warning, then by scoring one hit against the competitor and finally by exclusion from the competition, a contestant who improperly uses delaying tactics to prolong the bout.

I. Defective Equipment

If a fencer on the strip is found to be in possession of equipment which is non-regulation or defective, such equipment will be confiscated and will only be returned to the fencer after the completion of the event or after the equipment has been properly repaired.

1. If the equipment becomes defective during the course of the bout, the Director shall allow the fencer the time necessary to replace the defective equipment without imposing a warning or penalty.

2. If the fencer is found responsible for the defective equipment, the Director shall allow her the time necessary to replace it with regulation equipment and will give her a warning. If there is a repetition of the same fault during the event, the fencer shall be excluded.

3. If the Director establishes that a fencer is using falsified equipment, the fencer shall be immediately and irrevocably excluded from the competition.

J. General Information

1. Carry out the primary function of the Director of the Bout, which is to analyze fencing actions and to make decisions. The Director must use fencing terminology and call the actions as she sees them. She is not to be influenced by remarks of the coaches or spectators. The Director must not give a fencing lesson on the strip nor make any comments about the quality of the fencing unless it becomes dangerous to both fencers and the spectators.

2. Insist on promptness throughout the competition to prevent the loss of time.

3. Do not permit coaching from the sidelines.

4. Protect the rights of all contestants. Do not grant to one a

privilege which would not be granted freely to all others. Treat all contestants courteously, particularly when imposing penalties.

5. Watch for uniform tears, inadequate covering of neck and wrist, loose shoelaces, etc.

6. In electrical events, watch for loose connections and watch the surface of the fencing strip for tears or foreign matter which may interfere with the proper registration of touches or constitute a hazard.

7. Be alert for violation of boundaries.

8. Keep the lights of the scoring machine in line of vision at all times while watching the actions of the contestants. This sometimes will require the Director to stand at a severe angle to the contestants instead of between them.

9. Be certain the machine is cleared before each command to fence.

10. Instruct the machine operator to clear the machine at the question, "Are you ready?" The machine must not be cleared until after the Director has made her decision and before the command to fence.

VI. *The Awarding of Hits*

A. In electrical foil, the Director of the Bout decides the "right of way" and the validity of the touch. The Director alone makes the decision and should not be influenced by the contestants, coaches, spectators, or the scorekeeper or timekeeper who may argue as to "which light went on first."

B. When judges are used:

1. The Director calls "Halt" when a judge raises her hand.

2. The Director briefly analyzes the sequence of play.

3. The Director asks each pair of judges in turn whether a hit has been scored on the fencer they are watching in each action of the phrase she has outlined:

Director: The attack starts from the left. Did it arrive?"

Judge A: "No."

Judge B: "Abstain."

Director: "No, parried. The riposte?"

Judge C: "Yes."

Judge D: "Yes."

Director: "Touch against the left."

a. The Director alone decides which of the two judges on each side she will question first (usually the one in a better position to see a possible hit), but she must question the other judge watching in the same direction before she expresses her own opinion, if any, and before questioning the judges on the other side.

If only one judge is used on each side, the Director must ask the opinion of the judge before she expresses her opinion.

b. The Director may review the votes of the judges if there is reason to believe that a misunderstanding has occurred. She may, if she wishes, require any judge to indicate the area of the target where she thinks a hit has been scored.

c. All decisions are rendered on the basis of a majority of votes cast. When the judges on one side are in agreement, the Director's contrary opinion cannot change the result. If the Director is outvoted, she should refrain from voicing her opinion as this would be a criticism of the judges and encourage dissatisfaction on the part of the contestants.

d. If the decision of the Director is questioned by either the fencer or the captain of the team, the Director may explain her decision if she deems it desirable to do so. However, this should be discouraged as it can lead to more challenges and an undesirable atmosphere. The Director must give her decisions confidently and without hesitation.

e. The Director must not permit any discussion between the fencers and the judges, between the judges themselves, or between the fencers, judges, and spectators.

f. The Director must not influence the judges concerning decisions. If the Director finds one or two of the judges to be hesitant or inconsistent, the Director may place the judge on the same side of the fencer as the Director.

g. The Director has the power to annul a touch already awarded, or to reverse her decision against the awarding of the touch if she discovers:

(1) That a judge has voted incorrectly on the hit through a misconception or misapplication of the rules or

(2) That she herself has erred under the rules in deciding the validity of the rules.

The annulment or reversal of decision must be made immediately and before any fencing begins following the original awarding of the touch. This power cannot be exercised after the start of continued fencing.

4. *Method of Voting*

a. When a judge sees a hit, on or off target, she should advise the Director by raising her hand. The Director will stop the bout and question the judge. The answers from the judge should be:

(1) "Yes," if she is absolutely certain a hit is scored on valid target.

(2) "No," if she is absolutely certain a hit is not valid.

(3) "Off-Target," if she is absolutely certain that the hit was scored on the off-target area.

(4) "Abstain," if she is not certain as to the validity or the placement of the hit.

b. An experienced judge may answer "parried" or "passe" if she is certain of the action.

c. The Director cannot call a halt if only she sees a hit as she will either be influencing the judges or be automatically outvoted.

d. The opinion of each judge counts as one vote and that of the Director, one and a half votes. Abstentions are not counted as a vote.

e. A doubtful hit is never scored against the competitor who might have received it. Any hit made simultaneously or subsequently in the same phrase by the fencer who has been granted the benefit of the doubt must also be annulled. If a hit is made subsequently by the fencer who originally made the doubtful hit, the following will apply:

(1) Director: "The attack starts from my left. Did it arrive?"

Judge A: "Yes."

Judge B: "No."

Director: "Abstain." "Benefit of the doubt, no touch."

(2) However if there is no hit from the opposing fencer, the Director must continue:

Director: "Is there a hit from my right?"

Judge C: "No."

Judge D: "No."

Director: "The continuation of the attack (remise, redoublement, or riposte) from my left?"

Judge A: "Yes."

Judge B: "Yes."

Director: "Touch against my right."

(3) If the doubtful hit concerns an off-target, no other hit in this phrase may be scored.

f. After the jury decides the validity of the hit, the Director, acting alone and by applying the conventional rules for fencing, decides against which fencer a hit is to be awarded.

g. Hits are to be scored against the fencer who has been hit. The fencer who scores 4 touches against her opponent first, is the winner of the bout.

AMATEUR STANDING IN FENCING

The amateur code of the Amateur Fencers League of America -- The Bylaws of the AFLA (Article IV Section 2) contain the following definition:

"An amateur fencer is one who participates in fencing solely for the love of the sport, who has not derived direct or indirect financial benefits from competition or exhibitions in fencing, and who has never been a professional teacher of fencing or professional competitor or trainer in any branch of athletics."

The Bylaws also give the Board of Directors the exclusive power to enact, interpret and apply the Amateur Code. The Board is guided in its interpretations and decisions by its own precedents and those of the Amateur Athletic Union and the International Fencing Federation (FIE).

(For additional clarification, for precedents, and for the policies, prohibitions and exemptions governing amateur coaching, consult the *Amateur Fencers League of America Fencing Rules Manual*, 1970 Edition, Chapter VIII, pages 20-22 of the Operations Manual.)

All NAGWS officials are urged to acquaint themselves with the regulations governing amateur status not only in fencing but in all other sports.

Technical Rules of Fencing

Edited by MARY BETH CRAMER

Mary Beth Cramer received her B.S. degree from Madison College and her M.S. degree from the University of North Carolina-Greensboro. For the past six years she has been on the faculty of Pennsylvania State University where she teaches fencing. She is a member of the NFCAA and the AFLA and has been a participant in the Sudre International Fencing Camp at Cornell University.

Introductory Note

The technical rules of fencing which appear on the following pages have been abridged and excerpted from the *AFLA Fencing Rules for Competitions (1974)*. This new edition, published by the Amateur Fencers League of America, comprises an extensive almanac of history, terminology and rules and records of fencing. We thank the AFLA for permission to print this abridgement from their copyrighted material. Special acknowledgment is given to Joseph A. Byrnes for the English translation of the international (Fédération Internationale d'Escrime) rules and for his assistance in the preparation of the *NAGWS Fencing Guide*.

Since modern competitions are conducted with the electrical apparatus, basic rules have been included for running contests with the "electrical" foil. It should be noted that the AFLA is a member of the FIE, the United States Olympic Committee (USOC), and the Amateur Athletic Union (AAU). The AFLA maintains close relations with the National Collegiate Athletic Association (NCAA), the National Intercollegiate Women's Fencing Association (NIWFA), the Intercollegiate Fencing Association (IFA) and several regional intercollegiate associations whose respective jurisdictions of fencers in their member colleges are explicitly recognized.

The traditionally close cooperation between amateurs and their fencing masters was formalized in 1953 by the adoption of constitutional amendments creating the associate membership, open to nonamateurs. Most of the active fencing teachers in the United States are associate members of the AFLA and enjoy voting privileges. The AFLA also maintains close liaison with the National Fencing Coaches Association of America (NFCAA).

For a continuing and thorough understanding of rules and changing times in fencing, it is recommended that the readers obtain a copy of the *AFLA Fencing Rules for Competition (1974)*. Copies may be purchased from the secretary, Amateur Fencers League of America, Inc., 249 Eton Place, Westfield, New Jersey 07090.

In order that the readers may move smoothly from this abridged form of the rules to the *AFLA Fencing Rules for Competition* (1974), the parts, chapters and articles of these rules are numbered the same as in the *AFLA Fencing Rules for Competition* (1974).

PART ONE:

General Rules and Rules Applicable to all Three Weapons

CHAPTER III - TERMINOLOGY

A. DIRECTOR (PRESIDENT OF THE JURY)

3 Throughout the text of the present rules, the word Director will be used to mean "Director of Combat" or "Président de Jury" (the latter is the French term used internationally).

B. COMPETITIONS

§ 1. Free play and bout

4 Friendly combat between two fencers is called "free play" ("assault"); when the score is kept in a competition, it is called a "bout" ("match").

§ 2. Team match

5 The total of bouts between the fencers of two different teams is called a "match" ("recontre").

§ 3. Competition

A competition is the aggregate of the bouts (in an individual competition) or of the team matches (in a team competition) necessary to determine the winner of the competition ("épreuve").

Competitions are classified according to the weapons, the sex of the competitors, or their age, or their occupations (members of the armed forces, students, etc.), and by whether they are competitions for individuals or for teams.

Competitions are said to be "by direct elimination" when the competitors are eliminated upon their first loss (or after their second if the rules provide for a repechage table); a "pool" ("poule"), on the other hand, is a group of several competitors (or of all the competitors) who all fence each other successively to determine their respective classification.

§ 4. Championship

7 Championship ("championnat") is the name given to a competition held to ascertain the best fencer or the best team in each

weapon, within a sports organization, in a given area, and for a set period of time.

§5. Tournament

8 Tournament ("Tournoi") is the name given to the whole of the competitions held at the same place, in the same period of time, and on the same occasion.

C. EXPLANATION OF CERTAIN TECHNICAL TERMS MOST OFTEN USED IN JUDGING FENCING

§1. Fencing time

9 Fencing time (or: period of fencing time; "Temps d'escrime") is the time required to perform one simple fencing action.

§2. Offensive and defensive actions

10 The different offensive actions are the attack, the riposte, and the counter-riposte.

The *attack* is the initial offensive action executed by extending the arm and continuously threatening the opponent's valid surface (target) (see 233ff, 417ff).

The *riposte* is the offensive action made by the fencer who has parried the attack.

The *counter-riposte* is the offensive action made by the fencer who has parried the riposte.

The different actions are the parries.

The *parry* ("parade") is the defensive action made with the weapon to prevent the attack from touching.

Parries are *simple*, or direct, when they are made in the same line as the attack.

They are *circular* (counter) when they are executed in the line opposite to that of the attack.

11 Offensive Actions:

a) *Attack or riposte*

The action is *simple* when it is executed in a single movement; either *direct* (in the same line), or *indirect* (in another line).

The action is *composite* when it is executed in several movements.

b. *Riposte*

The riposte is *immediate* or *delayed* ("à temps perdu"); this is a question of fact (what action is performed) and of the speed of execution.

Examples:

1. Simple direct ripostes:

Direct (straight) riposte: a riposte which touches the opponent without having left the line in which the parry was made.

Riposte along the blade: a riposte which touches the opponent by gliding along the blade after the parry.

2. Simple indirect ripostes:

Riposte by disengagement: a riposte which touches the opponent in the line opposite to that in which the parry was made (by passing beneath his blade, if the parry was in the high line, and over the blade, if the parry was in the low line).

Riposte by coupé (cutover): a riposte which touches the opponent in the line opposite to that in which the parry was made (in all cases, by passing the blade over the opponent's point).

3. Composite ripostes:

Riposte with a double: a riposte which touches the opponent in the line opposite to that in which the parry was made, but after having described a full circle around the opponent's blade.

Riposte by one-two: a riposte which touches the opponent in the line in which the parry was made, but after having first been in the opposite line, by passing under his blade.

And so forth.

§3. Counter attacks

12 Counter attacks are offensive or defensive-offensive actions executed during the opponent's attack:

a) The *Stop* (stop thrust or cut): is a counter attack made on an attack.

b) The *Stop with opposition* (formerly called the "time thrust" or "time hit"): is a counter attack executed while closing the line in which the opponent's attack will be terminated (see 233ff, 329ff, and 418ff).

c) The *Stop in time*: is made with a period of fencing time (see 236, 421).

§4. Kinds of offensive actions

13 a) *Remise*

The remise is an immediate simple offensive action which follows an original action; it is made without withdrawing the arm, after the opponent's parry or retreat, either because the latter gives up contact with the blade without riposting, or delays his riposte, or attempts an indirect or composite riposte.

b) *Redoublement*

The redoublement is a new action, either simple or composite, made against an opponent who has parried without riposting, or has simply evaded the first action by a retreat or a displacement.

c) *Reprise d'attaque* (retaking of the attack)

The reprise is a new attack executed immediately after a return to the guard position.

d) *Counter time*

Counter time describes every action made by an attacker against his opponent's stop.

CHAPTER IV – FIELD OF PLAY ("TERRAIN")

14 The field of play must present an even surface. It may not offer either an advantage or a disadvantage to either of the two competitors, particularly as regards gradient or light.

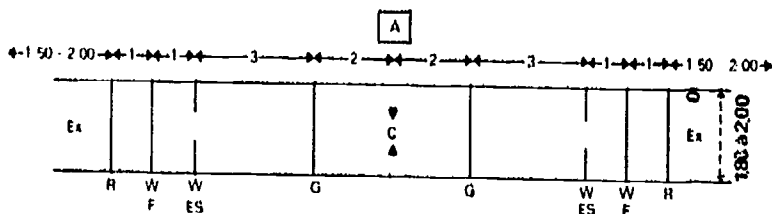
15 The portion of the field of play used for fencing is called the strip ("Piste"). The strip may be of earth, wood, linoleum, cork, rubber, plastic, metal, metallic mesh, or of a material with a metallic base.

The width of the strip is from 1.8 (5'10") to 2 meters (6'7"); its length for foil is 14 meters (45'11").

Besides the length specified, the strip should be extended at each end by 1.5 (4'11") to 2 meters (6'7"), to allow the fencer who is going to cross the rear limit to retreat over an even and unbroken surface.

If, for practical reasons, the strip cannot be of the regulation length, its length may not in any case be less than 13 meters (42'3"), including the extensions mentioned above.

PLAN OF THE USUAL 3-WEAPON STRIP



- A Table for scoring machine
- C Center (line)
- G On Guard lines
- Ex Extension

- W/F Warning line, foil
- W/ES Warning line, épée and sabre
- R Rear limit, all weapons

In electric foil and épée, the metallic strip must cover the full width of the strip and its full length, including the extensions at the ends (see 711).

Note: The figures on the plan indicate the dimensions in meters.

CHAPTER V – FENCERS' EQUIPMENT

§1. Responsibility of fencers

16 Fencers arm, equip and clothe themselves and fence on their own responsibility and at their own risk and peril.

§2. Inspection ("Contrôle") of fencers' equipment

17 Fencers are responsible for the condition of their gear (weapon and other equipment and clothing) at the moment they appear on the strip.

B. ORGANIZATION OF INSPECTION

18 Before each bout and at each change of weapon, the Director will check the insulation of the wires inside the guard and the strength of the point spring in electric weapons.

19 Before the beginning of each pool, each team match, and each bout in direct elimination, the Director, under the supervision of a member of the Bout Committee or of a qualified delegate, will assemble the fencers in order to verify:

– that in electric foil the metallic vest conforms to Article 216 with the fencer in the various positions: standing, on guard, and in the lunge.

– that each fencer is wearing, under the jacket, a regulation protective undergarment.

§3. Non-regulation equipment

21 Under whatever circumstances a fencer on the strip is found to be in possession of non-regulation or defective equipment, that equipment will be immediately confiscated and turned over to the experts on duty for examination.

A. If preliminary inspection of equipment has been carried out:

1. When a fencer appears on the strip:

– with a non-working weapon or body wire, or

– without a protective undergarment, or

– with a metallic vest that does not completely cover the valid surface, the Director will give the fencer a warning valid for that pool, that team match, or during the direct elimination bouts.

In case of repetition, he will impose one penalty touch for each offense.

2. When in the course of a bout an irregularity is demonstrated that could have arisen from the fencing:

Example: spring pressure having become insufficient, the Director will impose neither warning nor penalty. Moreover, a valid touch

that has been scored with a weapon that has thus become defective will be awarded.

§5. General requirements for clothing and equipment

27

3 All garments must be white or of a very light tint. They must be made of sufficiently strong material and be in good condition.

The material used for equipment shall not present a slippery surface capable of making the point or button glance off; the judging of touches shall be facilitated as much as possible.

4 The bottom of the jacket must overlap the trousers by at least 10 cm when the fencer is on guard.

The wearing of a protective undergarment is mandatory. The jacket and the collar must be completely closed and buttoned.

Women's equipment, in addition, must include in the jacket a breast protector of metal or some other rigid material.

5 The trousers (knickers) must be fastened below the knees. If the fencer wears long trousers, the bottoms shall either be buttoned or fastened above the feet.

With knickers, the wearing of a pair of white stockings is mandatory. They must cover the leg entirely up to the knickers and be fastened so that they cannot fall down.

6 In all weapons the cuff of the glove must always entirely cover the lower half of the forearm of the fencer's sword arm to prevent an opponent's blade from entering the sleeve of the jacket.

7 The mask must be formed of mesh wherein the openings between the wires are at most 2.1 millimeters and of which the wires are of a minimum diameter of 1 mm before timing, which should be carried out by a hot process after the mesh has been shaped.

In foil, the mesh of the mask must be insulated inside and out.

The bib and trim must be white or of a very light tint.

CHAPTER VI – FENCING ("COMBAT")

§1. Manner of fencing

28 Competitors fence in their own style and at their own risk and peril, on the sole condition that they observe the fundamental rules of fencing.

All fencing must, nevertheless, maintain a courteous and honest character. All violent actions (a flèche ending by jostling the opponent, disorderly play, abnormal displacements, any actions that the Director judges dangerous – for example, a running attack involving loss of balance, hits brutally delivered), are expressly prohibited.

The fencer on the strip must keep his mask on until the decision has been given by the Director.

§3. Manner of holding the weapon

30 Defensive actions are performed exclusively by the guard and the blade, used either separately or together. In the absence of a special device or attachment, the fencer is free to hold the hilt as he pleases and may likewise, in the course of a bout, change the position of his hand. However, the weapon may not, permanently or temporarily, in an open or concealed manner, be transformed into a throwing weapon; it must be managed without the hand leaving the hilt, and, in the course of an offensive action, without sliding the hand along the hilt from front to rear.

The use of the unarmed hand and arm is prohibited, both on offense and on defense. The penalty for a violation is annulment of a touch that may have been scored and the penalty of a touch, after a warning given in the course of the same pool, same team match, or the bouts by direct elimination.

In foil in the course of a bout, it is likewise prohibited to protect or cover the valid surface (target) with the unarmed hand or arm. The penalty for a violation is the annulment of a touch that might have been scored on his opponent by the fencer at fault, or the penalty of a touch, after a warning given in the course of the same bout.

§4. Putting on guard

31 The fencer first called must place himself on the Director's right, except in the case of a bout between a right-hander and a left-hander, if the left-hander is called first. The Director must place each of the two competitors so that his forward foot is 2 meters from the middle line of the strip (i.e., behind the "on-guard" line).

Placement on guard at the beginning of a bout and all replacements on guard are always made in the middle of the width of the strip.

The guard position is assumed by the fencers on the Director's command "On guard." After which, the Director asks "Are you ready?" Upon an affirmative reply, or in the absence of a negative reply, he gives the command to begin: "Fence." The fencers must place themselves on guard correctly and must maintain complete immobility until the Director's command "Fence."

In case the Director observes in the course of the bout that one of the fencers is using the unarmed hand or arm, he may ask for the assistance of two judges, as neutral as possible, who will be named by the Directoire Technique. These judges, located on each side of the strip, will each watch one fencer and indicate, by raising a hand or in response to the Director's question, any use of the unarmed hand or arm. The Director alone will decide the penalties to be imposed.

The Director may likewise have the two fencers change places, so that the one who commits this irregularity does not have his back toward him.

§5. Beginning, stopping and restarting the bout

32 1. As soon as the command "Fence" has been given, the competitors may begin offensive action. No action begun or completed before the command is counted.

2. The end of action is marked by the command "Halt," except for special cases that change the regular and normal conditions of fencing.

As soon as the command "Halt" has been given, a fencer may not begin a new action; only an action already under way remains valid. Everything which happens afterwards is completely invalid.

If one of the fencers stops before the command "Halt" and is touched, the touch is valid.

The command "Halt" is also given if the play of the fencers is dangerous, confused or contrary to the rules, if one of the fencers is disarmed, if one of the fencers leaves the strip completely, or if, in retreating, he nears the spectators or judges.

3. After each touch awarded as valid, the fencers are put back on guard at the center of the strip. If the touch is not awarded, they are put back on guard in the positions they occupied when the bout was interrupted.

4. Except in unusual circumstances, the Director may not permit a fencer to leave the strip.

§6. Fencing at close quarters (infighting)

33 Fencing at close quarters is permitted as long as the fencers can use their weapons normally, and as long as the Director can continue to follow the action ("phrase d'armes").

§7. Corps à corps

34 The "corps à corps" exists when the competitors remain in bodily contact; in this case, the Director halts the bout.

§8. Evasive actions, displacing the target, passing the opponent

35 Displacing the target, ducking under attacks, turns and halfturns are permitted, including ducking actions in which the unarmed hand may come in contact with the ground.

In the course of a bout, when a fencer passes his opponent, the Director must immediately give the command "Halt" and put the fencers back on guard in the places they occupied before the passing action occurred.

When touches are made in the course of a passing action, the touch made immediately (on the pass) is valid, and a touch made after passing the opponent is annulled; but one made immediately, even by turning around, by the fencer who has been attacked, is valid.

§9. Ground gained or lost

36 At the command "Halt," ground gained is held until a touch has been awarded. When they are put back on guard, the fencers must each retire an equal distance to reestablish fencing distance.

37 However: a) when the bout has been stopped because of a corps à corps, the fencers are replaced on guard so that the one who sustained the corps à corps, is at the place which he previously occupied; the case is the same if his opponent has made a flèche attack against him, even without a corps à corps.

b) A replacement on guard may have the effect of putting behind the warning line a fencer who was in front of it when the bout was stopped, if this fencer has not already been warned

§10. Crossing the boundaries of the strip

a) *Stopping the bout*

38 When a competitor crosses one of the boundaries of the strip with both feet, the Director must immediately call "Halt" and annul everything which happened after the crossing of the boundary, except a touch received by the fencer who crossed the boundary, even if it was received after the crossing, provided it resulted from an immediate parry-riposte.

When one of the fencers leaves the strip, only the touch scored under these conditions by the fencer who stays on the strip can be awarded, even in the case of a double touch, with the exception, however, of the case set forth in Article 42.

b) *Rear limits and warning lines.*

When a fencer's rear foot has reached his warning line for the last time, the Director gives the command "Halt" and warns the fencer of the ground remaining to him before he will cross over the rear limit of the strip. He repeats this warning each time that the fencer, after having regained his on-guard line with his forward foot, again reaches his warning line with his rear foot. The fencers are not warned at any other location on the strip.

40 The competitor who, after a warning, crosses—i.e., crosses with both feet—the rear limit of the strip, is declared touched. However, if the fencer crosses the rear limit without having been warned, he is it back on guard at the warning line.

41 The ground must be used as many times as is necessary to allow each fencer the benefit of the full regulation length for retreating, but they will be warned only when they reach the warning line for the last time.

42 If, after having crossed the rear limit, the fencer attacked parries and immediately ripostes or makes a stop, or executes a stop with opposition, the touch thus scored is valid. This provision is not applicable to the fencer who crosses the rear limit of the strip for the last time.

c) *Lateral boundaries.*

43 If a competitor crosses the lateral boundary of the strip with only one foot there is no penalty, but the Director must immediately give the command "Halt" and put the fencers back on guard on the strip.

The competitor who crosses one of the lateral boundaries with both feet is penalized. Upon the return on guard, his opponent will be advanced, from the position that he held at the moment of the action, by one meter in foil. The competitor who is placed beyond the rear limit of the strip with both feet by this penalty is declared touched, provided that he had already been warned at his warning line.

The fencer who crosses one of the limits with both feet to avoid being touched—particularly in making a *flèche*—will be penalized one touch, after a warning given in the course of the same bout.

d) *Leaving the strip accidentally.*

44 The competitor who crosses one of the limits as a result of an "accident" (such as a collision) is not liable to any penalty.

§11. Duration of the bout

45 By duration of the bout is meant effective duration, that is, the sum of the periods between the commands "Fence" and "Halt," not counting time used for deliberations of the jury or for other interruptions. The effective duration of a bout is: in all weapons for 4 touches = 5 minutes (4 minutes with an additional 1 minute warning).

46 The Director, himself advised by the timekeeper (who must not call "Halt" or sound any signal), halts the fencing and advises the fencers that approximately one minute remains before the expiration of the time allowed for fencing. The touch started at the moment of the Director's "Halt" remains valid.

In cases of a prolonged interruption of the bout during this last minute, the fencers may, upon coming back on guard, be informed of the time remaining to them for fencing.

At the expiration of the regulation time, the timekeeper must call "Halt" (or sound a signal) -- which stops the bout, and even an action already started is not valid.

48 In the course of a bout, the Director may penalize by a warning, then by a touch, and then by exclusion from the competition, a fencer who improperly endeavors to create or prolong interruptions of the bout.

§12. Accidents-indispositions-withdrawal of a fencer

50 If a fencer is the victim of an accident that has been duly verified, the Director may allow him one single rest period of 20 minutes maximum, in order to put himself in condition to fence.*

51 In case of one or several indispositions that have been duly verified, the Director may grant the fencer one single rest period of 10 minutes maximum in the course of the same team match, or the same pool, or during the bouts by direct elimination.*

52 The Director, on his own authority, may require the withdrawal of a fencer whose physical incapacity to continue is apparent.

CHAPTER VII – THE DIRECTION OF A BOUT AND THE JUDGING OF TOUCHES

A. OFFICIALS

§1. The Director ("Président")

53 Every fencing bout is under the control of a Director whose duties are many:

- a) He calls the roll of the fencers.
- b) He directs the bout.
- c) He inspects the equipment, including the insulation of wires, particularly on the inside of the guard.
- d) He supervises his assistants (judges, floor judges, timekeepers, scorekeepers, etc.)
- e) He maintains order.
- f) He penalizes offenses.
- g) He awards the touches.

§2. The Jury: Judges and Floor Judges

* In the application of Articles 50 and 51, a cramp must be regarded as an indisposition and not as an accident and will fall under the provisions of Article 51.

54 The Director accomplishes his mission either with the assistance of four judges ("Assesseurs"), or with the aid of an automatic touch signaling machine. In the latter case he may have the assistance of two judges watching for the use of the unarmed hand or arm or of two floor judges.

The Director and the judges (or floor judges) form the "jury." In accepting service on a jury, each of its members by so doing engages on his honor to respect the rules and to enforce them, as well as to perform his duties with the most scrupulous impartiality and the most sustained attention.

§3. Auxiliary personnel

1. Scorekeepers and timekeepers

59 Whenever it is possible for them to do so, the organizers will appoint, on their own responsibility, scorekeepers who will be responsible for keeping the score sheet for the pool and the score boards, and a timekeeper who will be responsible for timing the duration of the bouts.

B. JUDGING BY A JURY

§1. Duties of the Director

61 The Director will station himself at a distance from the strip that will permit him to follow the actions of the fencers thoroughly; he will follow their movements up and down the strip.

§2. Location of the jury

62 On each side of the strip there are two judges, respectively to the right and left of the Director, and a little behind the fencers. The two judges on the Director's right watch the fencer on the Director's left, particularly to observe the materiality of touches that may be received by that fencer.

In similar fashion, the two judges on the Director's left watch the fencer on the Director's right, particularly to observe the materiality of touches that may be received by that fencer.

§3. Judging

a) Procedure

63 The Director, who alone is responsible for the direction of the bouts, gives the commands. However, another member of the jury may call "Halt," but only in case of an apparent or imminent violation. Similarly, the timekeeper stops the bout by calling "Halt" at the expiration of time.

64 As soon as a judge sees a material touch (valid or not) against the fencer he is particularly watching, he must raise his hand to advise the Director.

65 All judging is carried out aloud and without the members of the jury leaving their places.

66 The jury is not bound by the acknowledgement of a touch by a fencer, even when properly made.

67 The jury first determines the materiality of the touch or touches. The Director alone then decides which fencer is touched, by applying the conventional rules for each weapon.

b) Materiality of the touch

68 Immediately upon the stopping of the bout, the Director briefly analyzes the actions composing the last phrase d'armes before the "Halt," and in the course of his analysis, he asks the two judges watching the same fencer to learn if, in their opinion, each of the actions thus analyzed has produced a touch against that fencer.

The judges, upon being questioned, must reply in one of the following ways: "yes," "yes, but on invalid surface (off-target)," "no," or "I abstain." The Director votes last.

69 The Director then adds the votes thus elicited on either side: the opinion of each judge counts as one vote and the Director's own opinion as a vote and a half, with abstentions not being counted:

1. If both judges on one side agree in a definite opinion (either both "yes" or both "no," or both "yes, but on invalid surface"), their judgement prevails.

2. If one of the judges has a definite opinion and the other abstains, the Director alone can decide since his vote is preponderant; if he also abstains, the vote of the judge having a definite opinion prevails.

3. If the two judges have definite but contradictory opinions or if they both abstain, the Director may decide according to his own opinion; if he also abstains, the touch is considered doubtful (see Para. 5 below).

5. A touch of doubtful materiality is never counted to the disadvantage of the fencer who may have received it; but, on the other hand, any touch made subsequently or simultaneously in the same phrase d'armes by the fencer who has benefited from this doubt must also be annulled; as for a touch subsequently made by the fencer who had made the doubtful touch, it is necessary to distinguish:

1. - If the new touch (remise, redoublement, or riposte) is made by the fencer who had made the doubtful touch, without any intervening touch by his opponent, this new touch must be awarded.

11. - But if the doubt was as to the place where the touch arrived

(one "yes" and one "yes, but off-target"), no further touch in that phrase d'armes can be awarded.

III. - The situation is the same if, between the doubtful touch and the new touch made by the same fencer, his opponent has also made a touch that has been annulled as doubtful.

70 After the decision of the jury on the materiality of the touch, the Director, acting alone and by application of the rules conventional for each weapon, decides which fencer must be declared touched or if no valid touch is to be awarded.

C. JUDGING WITH A SCORING MACHINE. (See Part Two, Chapter IV E)

PART TWO: FOIL

CHAPTER IV -- THE CONVENTIONS OF FENCING WITH THE FOIL

A. METHOD OF MAKING TOUCHES

219 The foil is a thrusting weapon only. An offensive action with this weapon must therefore be made with the point and only with the point. Every thrust with the point must arrive clearly and plainly to be counted as a touch.

B. VALID SURFACE (TARGET)

§1. Limitation of the valid surface

220 In foil, only those touches that reach a surface classified as valid (the target) are counted.

The valid surface, in both women's and men's foil, excludes the limbs and the head. It is limited to the trunk of the body, reaching at the top to the upper edge of the collar to a height of six centimeters above the top of the collar bones (clavicles); at the side, it reaches the seams of the sleeves, which should pass over the top of the humerus; at the bottom, it follows a line that passes horizontally across the back at the level of the top of the hip bones, and from there proceeds in front by straight lines to the junction of the groin.

221 The bib of the mask is not part of the target.

§2. Extension of the valid surface

222 Touches arriving on a part of the body classified as invalid are counted as valid when, by an abnormal position, the fencer has substituted this invalid surface for a valid surface.

§3. Invalid surface

223 A touch that arrives on an invalid surface (whether directly or as the result of a parry) is not counted as a valid touch, but stops the phrase d'armes and thus annuls all subsequent touches.

C. CORPS À CORPS AND FLÈCHES

224 Whenever, in foil, a fencer intentionally or systematically causes the corps à corps (even with neither brutality nor violence), he must be penalized one touch—after a warning given in the course of the same bout.

D. DURATION OF THE BOUT

226 When the time runs out before the bout is decided:

a) if one of the competitors has received more touches than the other, there is added to his score the number of touches necessary to arrive at the maximum, and the same number is also added to the score of the other fencer;

b) if the two fencers are tied, they are both regarded as having received the maximum number of touches, less one; and they fence without limit of time for the last touch. They are put back on guard at the positions they occupied when the bout was interrupted.

E. JUDGING TOUCHES IN FOIL

227 Foil competitions are usually judged with the aid of an electrical scoring machine. The organizers are obliged to announce in advance if the competition will be judged by a jury.

I. MATERIALITY OF THE TOUCH

§1. With a jury.

§2. With a scoring machine.

228 1. For judging the materiality of the touch, the indication of the scoring machine alone is the determinant. In any case, the Director may not declare a fencer touched unless the machine has properly registered the touch (except in case of penalties provided in the rules).

229 In using the scoring machine, note that:

a) if the two signals on the same side (both white and colored) are lit, the invalid touch preceded the valid touch;

b) otherwise, the machine does not indicate whether there was any priority in time between two or more touches that it registers at the same time.

230 2. The Director will disregard signals resulting from thrusts:

- started before the command "Fence" or after the "Halt."
- touching the ground (outside the metallic strip or when there is none), or touching any object whatsoever other than the opponent or his equipment.

The fencer who intentionally causes a touch signal by putting his point on any surface whatsoever other than his opponent shall be penalized one touch--after a warning given in the course of the same pool, the same team match, or during the bouts by direct elimination.

It is forbidden for a fencer to put an uninsulated part of his weapon in contact with his metallic vest with the intention of blocking the operation of the machine and thus avoiding being touched.

The penalty for this violation is the annulment of a touch that may have been scored by the fencer who creates the blocking of the machine.

In case of a repetition, the penalty is annulment of the touch that may have been scored and--after a warning valid for the whole pool, the whole team match, or the bouts by direct elimination--the penalty of one touch.

In case of another repetition, the penalty is exclusion from the competition.

231 3. The Director, on the other hand, must take into account possible defects in the scoring equipment, particularly:

a) He must annul the touch he has just awarded, as the result of the appearance of a valid touch signal (colored lamp), if he establishes, by tests carried out under his careful supervision, and before any effective resumption of the bout* and without anything having been changed in the equipment in use:

- either that a "valid" touch signal is produced against the fencer declared touched without there actually being a valid touch;
- or that an invalid touch made by the fencer declared touched is not registered by the machine;
- or that a valid touch made by the fencer declared touch do not remain fixed on the machine.

b) On the other hand, when the Director has determined that one fencer's touch had the priority (right of way), there is no

* The fact that the Director has said "Fence," and even that a certain time has elapsed since that command, does not necessarily indicate an "effective resumption of the bout" if the fencers have remained in a passive attitude. It is necessary that the two fencers have actually entered into a phrase d'armes that might have affected the equipment in use.

ground for annulling that touch if tests then show that a valid touch made by the fencer declared touched is registered as invalid or that the latter's weapon gives a permanent invalid signal.

c) If a fencer's equipment does not conform to the specifications for insulation of lame and mask, there is no ground for annulment in case a valid signal is produced by a touch on his invalid surface.

4. The Director must also apply the following rules:

a) Only the last touch preceding the establishment of a defect can be annulled;

b) The fencer who, without being asked by the Director, has made modifications in, or has changed, his equipment before the Director has given his decision, loses all right to annulment of a touch.

c) If there has been an effective resumption of the bout (see note to paragraph 3a above), a fencer may not claim the annulment of a touch awarded against him before the said resumption;

d) The localization of a defect found in the equipment (including the fencers' own equipment) is of no consequence for this possible annulment.

e) It is not necessary that the defect found should repeat itself at every test; but it is necessary that it has been positively observed at least once by the Director himself in the course of tests made by him or under his supervision;

f) The sole fact that the fencer declared touched has broken his blade is not sufficient to annul that touch;

g) The Director must be especially alert for touches that are not signalled, or abnormally signalled, by the machine. In case of repetition of these defects, the Director must call for the member of the Commission on Electrical Scoring and Equipment who is present, or for the technical expert on duty, in order to determine whether the equipment conforms to the rules.

The Director must watch that nothing is changed either in the fencers' equipment or in the whole of the electrical equipment before the inspection by the expert.

5. In all cases in which the verification has been made impossible as the result of accident, the touch will be regarded as "doubtful" (see 69/5).

6. If signals appear on the apparatus simultaneously from both sides and the Director cannot establish the priority (right of way) with certainty, he must put the fencers back on guard.

7. In application of the general rule, even if no signal has been registered, the Director must halt the bout as soon as the action becomes confused and it is no longer possible for him to analyze the phrase d'armes.

8. The Director must also watch the condition of the metallic strip; he will not permit the bout to be started or to be continued if the metallic strip has holes capable of interfering with the registration of touches. (The organizers shall make provision for the rapid repair or replacement of metallic strips.)

II. VALIDITY OR PRIORITY OF THE TOUCH (RIGHT OF WAY)

§1. Preliminary note

232 Whatever means the Director has used to reach a decision on the materiality of the touch (with the assistance of a jury or by aid of a scoring machine), it is then his responsibility alone to decide on the subject of the validity or priority (right of way) of the touch by applying the following principles which are the conventions proper to foil fencing.

§2. Observance of the phrase *d'armes* (fencing phrase)

233 a) Every correctly executed attack must be parried or completely avoided, and the phrase *d'armes* must be followed through.

To judge the correctness of an attack, the following points must be considered:

1. If the attack starts when the opponent is "in line" (i.e., "with the arm extended and the point threatening a valid surface"), the attacker must first deflect his adversary's weapon*;

2. If the attack starts when the opponent is not in line, it may be executed either by a direct thrust or by a disengagement, or by a *cutover* (*coupé*), or may be preceded by effective feints that force the opponent to parry;

3. If, in searching for the opposing blade to deflect it, the blade is not found (*derobement* or *trompement*), the right of way passes to the opponent.

234 b) The parry gives the right of way to the riposte; the simple riposte may be direct or indirect, but to annul any subsequent action of the attacker, it must be executed immediately, without indecision or delay.

235 c) In a composite attack, if the opponent finds the blade on one of the feints, he has the right to riposte.

236 d) In composite attacks, the opponent has the right to make a stop; but to be valid the stop must precede the conclusion of the attack by a period of fencing time, i.e., the stop must touch before the attacker has commenced the last movement of the conclusion of the attack.

* Directors must be alert that the mere grazing of the blades is not considered as sufficient to deflect the opponent's blade.

§3. Judging

237 In applying these fundamental conventions of the foil, the Director must judge as follows:

Whenever, in a phrase d'armes, the fencers are both touched simultaneously, there has been either a simultaneous action or a double touch.

The former is the result of simultaneous conception and execution of the attack by both fencers; in this case, the touches given are annulled for both fencers, even if one of them has touched an invalid surface.

The double touch, on the contrary, is the result of a faulty action on the part of one of the fencers.

Consequently, if there is not a period of fencing time between the two touches:

1. The fencer attacked is alone counted as touched—

a) if he makes a stop into a simple attack;

b) if, instead of parrying, he attempts to avoid being touched, and fails;

c) if, after a successful parry, he pauses for a moment—which gives his opponent the right to resume his attack (redoublement, remise, or reprise);

d) if, on a composite attack, he makes a stop without having the advantage of a period of fencing time;

e) if, being in line (arm extended and point threatening a valid surface), after a beat or a taking of the blade which deflects his weapon, he attacks or replaces his blade in line instead of parrying a direct thrust made by the attacker.

2. The attacker alone is counted as touched—

a) if he starts his attack when the opponent is in line (arm extended and point threatening a valid surface) without deflecting the opposing blade*;

b) if he attempts to find the blade and fails (because of a derobement or trompement) and still continues the attack;

c) if, in a composite attack, in the course of which his opponent finds the blade, he continues the attack while his opponent immediately ripostes;

d) if, in a composite attack, he hesitates for a moment during which the opponent delivers a stop thrust, yet he continues his attack;

e) if, in a composite attack, he is hit by a stop made with the advantage of a period of fencing time before his conclusion;

* Directors must be alert that the mere grazing of the blades is not considered as sufficient to deflect the opponent's blade.

f) if he touches by remise, redoublement, or reprise, after a parry by his opponent which is followed by an immediate simple riposte executed in one period of fencing time and without withdrawal of the arm.

3. The fencers are replaced on guard, every time that the Director cannot decide clearly which side is at fault in a double touch.

One of the most difficult cases to decide occurs when there is a stop and there is doubt as to whether it had a sufficient time advantage over the conclusion of a composite attack. In general, in this case, the double touch is the result of simultaneous faults by the fencers, which fact justifies the replacement on guard. (The fault of the attacker lies in indecision, slowness or inefficient feints; the fault of the fencer attacked lies in his delays or slowness in making the stop).

WE ENCOURAGE ALL READERS TO PURCHASE THE AFLA RULES BOOK *FENCING RULES FOR COMPETITIONS* (1974 edition).

NAGWS SPECIAL PUBLICATIONS

DGWS Research Reports: Women in Sports. 1973	(243-25472)
Riding Standards	(243-25474)
Manual for Teaching Western Riding	(243-25106)
Philosophy and Standards for Girls and Women's Sports	(243-25484)
"Polly" Cartoons. Revised! 1968	(243-07846)
"Polly" Cartoons II. 1971	(243-25170)
AIAW Handbook. 1974 published annually	(243-25344)
Basketball Rules 1974-75	(243-25536)
Field Hockey-Lacrosse Rules 1974-76	(243-25540)
Softball Rules 1974-76	(243-25580)
Volleyball Rules 1973-75	(243-25398)
Selected Aquatics Articles. 1971	(243-07596)
Selected Archery Articles. 1971	(243-25160)
Selected Basketball Articles. 1971	(243-07066)
Selected Gymnastics Articles. 1971	(243-25164)
Selected Riding Articles. 1969	(243-08036)
Selected Softball Articles. 1969	(243-08044)
Selected Track and Field Articles. 1972	(243-25166)
Techniques Charts	
Badminton, 1967	(243-07842)
Swimming, 1971	(243-25130)
Tennis, 1967	(243-07844)

ORDER FROM

American Alliance for Health, Physical Education, and Recreation
1201 Sixteenth Street, N.W., Washington, D.C. 20036