A TENTATIVE CONDENSATION OF STANDARDS IN ATHLETICS FOR GIRLS AND WOMEN.

This is a statement of a point of view regarding the nature and conduct of athletics for girls and women. It represents the position of the National Section on Women's Athletics of the American Association of Health, Physical Education and Recreation.

A standard is an authoritative rule or model constructed as a guide to action. Standards serve as a basis for program making, as a means for motivation and stimulation of activities and as a method of appraisal. To be effective in guiding action standards must be sufficiently general to operate in many situations and sufficiently specific to indicate a course of action in any given situation.

Any statement of standards concerning women in athletics must be presented both in terms of the development of the individual who participates and in terms of the leader of the program. One of the first points to keep in mind is that the participant is concerned primarily with herself, that is, with what she is to gain from athletic participation. The long view of the situation must belong to the leader. Leadership in athletics is a common responsibility of all persons who exercise any type of control over the way an activity is carried on. It begins with the administrator who holds ultimate power. It falls directly upon the teacher or coach who actually conducts the activity and extends to the most temporary leader who directs his side or captains his team in a contest. Therefore, the following statements must also be interpreted continuously in terms of the participant and the leader.

THE STATEMENT OF STANDARDS

PURPOSE

The one purpose of athletics for girls and women is the good of those who play.

STANDARDS

The program of athletic activities for girls and women should be based upon a profound knowledge of the individual and the environment in which she lives.

The program should be based upon the individual differences of the participant, such as: age, physique, interests, abilities, experience, health, and stage of physiological, emotional and social maturity.

Athletic activities should be chosen and developed on the basis of scientific evidence and from these three aspects:

a. Analysis of activities from simple to complex.
b. The classification of individuals in ability from novice to expert.
c. In terms of present and future use.

The program should provide for a continuous challenge to the ingenuity, organizing powers and powers of appraisal of every player so that each may lead according to her merit and skill in leading and may follow according to her willingness and ability to adapt herself to others and to a common end.

Participation in athletic activities should depend upon a thorough understanding of the health status of the participant.

Special restrictions upon participation, such as participation during the menstrual period should be determined by individual differences. In the absence of final evidence conservative procedure should be the rule.

The program of athletic activities should be based upon the relating factors of the environment in which the participant plays, such as: physical setting and facilities in the community and the organization responsible for the program.

Each community should be studied to use, to improve and to increase all available space and facilities for wholesome play.

The program should be carefully adapted to specific local conditions and built in terms of local needs.

The environment for play should be planned, supervised and controlled by the best standards of health and safety.

The element of competition present in all organized group play should be made to function as an important fundamental constructive factor.

The program should offer opportunity for competition to all according to the ability of the individual.

Competition should be wide in range rather than centered in one activity.

Competition should be adapted to the needs and interests of the participants in every respect.

For competition, those types of organization should be selected which will yield the greatest number of desirable outcomes.

Competent women officials should be used for athletic competition.

Official rules either developed or authorized by the National Section on Women's Athletics should be used.

The athletic program should progressively educate the participant away from the need for artificial incentives and tangible awards.

Good publicity should develop a sound public attitude concerning the program, its standards, aims and outcomes, and the importance of the welfare of the players.

LATE RESEARCHES IN BASKETBALL

by

Dr. Forrest C. Allen,
Director of Physical Education,
Varsity Basketball Coach,
University of Kansas, Lawrence, Kansas.

(Presented to the Men's Athletic Section of the American Association for Health, Physical Education and Recreation at their national meeting in San Francisco, California, April 3-6, 1939.)

For years the generally accepted method of choosing a team has been upon the judgment of the coach, reinforced by the performance of stellar players who were outstanding in scoring field goals on the offense and by superior guards smothering the scoring opposition. Many times a coach removes a player from the game merely on the coach's own judgment. By the same token other players do not get an opportunity to play because this particular individual did not attract the coach's attention.

Baseball has had its batting and fielding averages computed for years, thereby making it easy to weigh the ability of the dominant players in this sport. Using the same procedure in basketball, it is the opinion of the speaker that a relative rating of basketball players can be had. We call this the "batting and fielding averages" because this terminology elicits the interest of these competing players on account of their previous experiences in baseball. Most every able-bodied boy in America has played either hard ball or soft ball. I think this is also true in basketball. The problem was to link up the interest of these boys and get them to enter into a scheme that indicated their prowesses definitely in basketball as has been done in baseball.

The development of a list of offensive elements was the first step. With that idea in mind a list of offensive elements was made and each activity or play was weighed subjectively. The weight of the item was carefully considered as it related to an important part of offensive tactics and also insofar as it contributed to the execution of sound fundamentals and to winning success. Of course, the objective was to stimulate the learner to make as few mistakes as possible. Experience has shown that it is the repetition of mistakes that defeats a player or a team. The same mistake made too many times always proves disastrous.

Under the heading, "The Kansas Basketball Evaluation Study", is shown the positive items as opposed to the negative items. Every play of importance, both in the positive and the negative offensive study, has been weighed in evaluation points. The old kindergarten theory of a good reward for a good deed and a poor reward for a bad deed has been carried out.

In the above offensive study the data were collected by former varsity players well versed in the meaning of these evaluation points, by mature majors in the Department of Physical Education, and by some other well qualified student assistants. Twelve men students were used in the collection of facts, six for

each team. The men worked in pairs, one acting as a recorder and the other as an observer. One pair made a record of all the passes and catches, one pair made a spot record of all the shots taken by players' numbers, and the other pair recorded the remaining material. Data were collected during all the home games on both the Kansas team and the visiting teams. The technique used in the collection of these data is the same as described in the first evaluation study.

It will be observed that in the first year only the offensive evaluation chart was used. In the second year of the study, 1938-'39, the evaluation technique was extended to include a defensive rating system for both the team and the individual players. A new term, "defensive efficiency", is used in the defensive rating which is comparable to the first study on the offensive rating. You will please note that in Table III the term "defensive efficiency" is the result of the formula:

$$\frac{\text{total positive defensive evaluation points}}{\text{sum of positive and negative defensive points}}$$

We now have a form of study which incorporates the offensive and the defensive rating comparable to the batting and fielding averages in baseball.

It is the conviction of the speaker that research of this type is worth while. The accuracy of this study depends upon the efficiency of the recorders. As stated heretofore, the selections were carefully made and the same individuals performed their tasks in all games. Therefore, there is every reason to believe that the results were very nearly correct. The great benefit accruing to a coach from this type of study is that the mistakes made during the game are pointed out, thus causing the players to be more conscious of them. This chart will enable the coach to link up the practice period value of executing proper fundamentals with matched game or competitive situations.

For instance, we teach our players before receiving the ball when going down the court never to get closer to the sideline than 8 feet because should that player fumble the ball when very near the sideline it will go out of bounds and the player will lose evaluations points; whereas the same ball thrown to him when he is within 8 feet of the sideline can properly be recovered for no loss of evaluation points to the player and to the team.

Again, in our offensive set up we insist that our offensive players do not retreat toward the division line nearer than 8 or 10 feet, because when the offensive team is forced back collectively by a defensive team, the player on the offensive team having the ball is in danger of getting "tied up" if he were closer to the division line than 8 feet.

Innumerable instances such as the two outlined above are always presenting themselves to the coach, enabling him to forcably teach better fundamentals to his proteges. The coach can say - By overcoming certain self-evident faults you can increase your batting and fielding averages. And in the discussions that always follow when the players and their coach are huddled around the batting and fielding average chart in the dressing room the following day these above mentioned points always come out during the "bullfest".

Further, it stresses the additional importance of game fundamentals and it also provides an itemized history of the contest which is intensely interesting to the players in the upper brackets. It stimulates those in the lower brackets to better their fundamentals. And too, it makes it possible for a coach to select his men on a more accurate basis. His judgment is reinforced by the itemized history of the contest.

The speaker is indebted to Dr. E. R. Elbel and Dr. V. W. Lapp, of the Department of Physical Education, for their aid in working out the rating of the basketball players. To Dr. Elbel for his invaluable assistance in an a dvisory capacity in weighing the offensive and defensive elements and in the careful selection of the recorders. To Dr. Lapp for his painstaking work in compiling the statistics and presenting the results in readable form. Dr. Lapp initiated the thought of writing to each player on the varsity squad, asking them to evaluate each of their teammates according to their individual playing efficiency. It is through Dr. Lapp's untiring devotion and indefatigable patience that this research is possible.

Discovered! Complete rest and relaxation!
Achieved scientifically for the first time!

Julia Tuggle

POSTURE BOARD

- improves posture, carriage, poise
- relieves backache, strain, cramps
- aids in correcting round shoulders
- relieves nervous tension, pressure

- Doctors, teachers, clinics recommend it!
- For schools . . offices . . homes . . hospitals . . clubs . . gymnasiums . . beauty shops.
- For men, women, children – one board serves the needs of all the family!

Rest, relief, energy, vitality--achieved with Posture Board!

WHAT IS THE POSTURE BOARD?

Posture Board is the invention of a woman with vision. Its principle is so simple, so sure, so sensible you'll be amazed that no one thought of it before. Doctors have recommended it. Physical Education teachers have urged it, but not until *Posture Boards* were introduced was it possible to achieve scientific rest and relaxation.

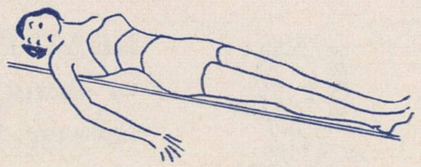
HOW DOES THE POSTURE BOARD WORK?

Lie flat on your back. Head back and knees up. Comfortable, relieved, relaxed. Backache, tense muscles, strained nerves vanish. Ten to fifteen minutes a day turns the trick. Posture Board folds flat when not in use. Compact, light weight, it slides in a closet.

★

WHAT DOES THE POSTURE BOARD DO?

Well known is the fact that a flat spine is the key to complete relaxation. It is not enough to lie straight on a flat surface. The spine refuses to straighten out, muscles remain taut, the position is something like this:



Posture Board relieves this strain and tension, encourages complete relaxation. Legs are suspended, taking all tension from their muscles. The pelvis is rolled forward. The spine automatically flattens. Strain disappears from the abdominal walls. The chest is raised, deep diaphragmatic breathing results. Complete, *scientific* rest and relaxation!

★

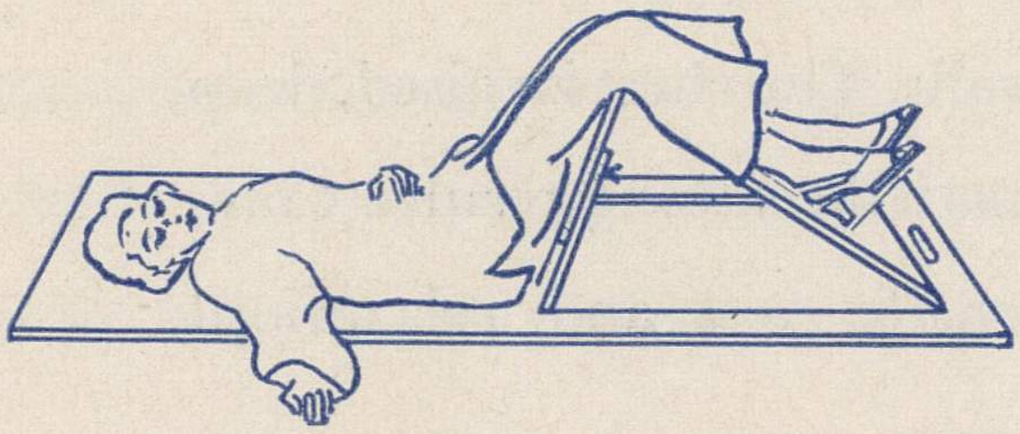
TEACHERS USE POSTURE BOARD in teaching posture control, rest habits, poise. They find it an invaluable aid in muscular co-ordination, correct breathing, correcting round shoulders.

DOCTORS USE POSTURE BOARD in many orthopedic cases, particularly those involving the lumbar region. To such patients Posture Board brings quick and effective relief.

BEAUTICIANS USE POSTURE BOARD in Beauty Shops for patrons during facials and massage. It encourages relaxation, makes the beauty operators' work easier, more effective. Blood flows to the head, muscles and cells are nourished. Posture Board becomes an aid to beauty!

MEN AND WOMEN USE POSTURE BOARD to relieve backache, strain, nervousness, tension. It gives new energy and vitality, helps them accomplish more, work better. Make it a daily habit.

17.50



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RESEARCH SECTION
Friday, March 31, 1939

2:00 P.M.

Chairman: Dr. V. W. Lapp, Asst. Professor, Department of Physical Education, University of Kansas, Lawrence, Kansas.

Summarizer: Mr. Ralph A. Piper, Asst. Professor, Department of Physical Education, University of Minnesota, Minneapolis, Minnesota.

- -

1. INTRAMURAL ATHLETICS: A STUDY IN GRADING AND BALL HANDLING IN GYMNASIUM CLASS BASKETBALL.
   J. K. Kennedy, Director of Physical Education, Westport Senior High School, Kansas City, Missouri.

2. THE CORRELATION OF ROGER'S TEST OF PHYSICAL CAPACITY AND THE CUBBERLEY AND COZEN'S MEASUREMENT OF ACHIEVEMENT IN BASKETBALL.
   Lawrence Rarick and Florence Hinton, Directors of Physical Education, University of Wichita, Wichita, Kansas.

3. A PRELIMINARY REPORT OF THE STATUS OF NIGHT FOOTBALL IN THE UNITED STATES.
   Ralph A. Piper, Asst. Professor of Physical Education, University of Minnesota, Minneapolis, Minnesota.

4. RATING OF BASKETBALL PLAYERS.
   Dr. Forrest C. Allen, Director of Department of Physical Education and Head Basketball Coach, University of Kansas, Lawrence, Kansas.

5. A STUDY OF THE RELATIVE AMOUNT OF TIME OF DIFFERENT TYPES OF PITCHED BALLS.
   James D. Kenny, Instructor of Physical Education, Normandy High School, St. Louis, Missouri.

6. A MECHANICAL AND PSYCHOLOGICAL ANALYSIS OF BATTING IN BASEBALL.
   Dr. C. H. McCloy, Asst. Professor of Anthropometry and Physical Education, State University of Iowa, Iowa City, Iowa.

7. RECREATION HOBBIES OF SCHOOL TEACHERS.
   Les L. Warren, Supervisor of Recreation and Community Use of Schools, Kansas City Public Schools, Kansas City, Mo.

Recreational Method of Teaching Skills in
Physical Education.

Problem:

To find a method of teaching skills in Physical Education consistent with the general educational aims and the modern psychological knowledge of the individual and his learning process.

Procedure;

Two equated groups of fourteen students each were used. Group A taught by the traditional additive parts method. Group B taught by the functional pattern or Recreational method. Groups met separately for a period of seven weeks, twice a week. The students knew nothing of the experiment in progress

Conclusions:... and Results:

Group B learned the skills more quickly and better than did the students in group A

Groups were scored by six members of the University of Kansas Fencing team, as groups and as individuals, from 1 to 5(poor to excellent).

Group A received a group score of "2" or 'fair'. Group B received a group score of 4 or 'very good'.

64.2% of students in group A ranged between poorto fair.
85.7% of students in A were scored 2 or below.
0% of students in A had score of 4.

Group B
21.4% were between fair-good; 2-3
78.6% were judged good-verygood;3-4... a very significant difference here in the two groups.

Average score for Group A (additive parts) was 1.48
Average score for Group B(Recreational) was 3.29

On the basis of the results obtained we believe that the proposed Recreational method will be of advantage both to the learner and the Instructor when used in teaching skills in Physical Education.

James Raport
Instructor in PHys. Ed.
Varsity Swimming Coach

Physical Whole is a completed neuro-muscular activity, complete with respect to the immediate goal involving first the use of the fundamental ~~groups~~ muscles + working up to the use of the accessory muscle groups.

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TABLE I

Geogyraphical Distribution of the High Schools that returned Questionnaires on night football.

Eastern States	High Schools	
1. Maine		
2. New Hampshire		
3. Vermont		
4. Massachusetts	1	
5. Connecticut		
6. Rhode Island		
7. New York	3	
8. Pennsylvania	18	
9. New Jersey	8	
10. Delaware		
11. West Virginia	10	
Total		40
Mid-Western States		
1. Illinois	19	
2. Indiana	12	
3. Michigan	20	
4. Minnesota	56	
5. Iowa	29	
6. Wisconsin	17	
7. Ohio	65	
8. Kansas	40	
9. Nebraska	16	
10. Missouri	11	
11. North Dakota	4	
12. Oklahoma	29	
13. South Dakota	7	
Total		325
Western States		
1. Colorado		
2. Montana	2	
3. Utah		
4. Wyoming	3	
5. California	16	
6. Idaho	1	
7. Nevada		
8. Oregon	8	
9. Washington	1	
Total		31
Southern States		
1. Alabama	27	
2. District of Columbia	1	
3. Florida	13	
4. Georgia	2	
5. Kentucky	26	
6. Louisiana	4	
7. Maryland	4	
8. Mississippi	8	
9. North Carolina	1	
10. South Carolina	3	
11. Tennessee	3	
12. Virginia	1	
13. Arizona	6	
14. Arkansas	5	
15. Texas	25	
16. New Mexico	5	
Total		134
Grand Total for U. S.		530

TABLE II

Distribution of 530 High Schools according to population of communities in which they are located.

Institutions	High Schools	
1000 or less	16	
1001 to 2500	85	
2501 to 5000	107	
5001 to 10000	126	
10001 to 25000	106	
25001 to 50000	37	
50001 to 100000	12	
Over 100000	39	
Total		530

TABLE III

Student enrollment of High Schools playing night football.

Institutions	High Schools	
250 or less	39	
251 to 500	158	
501 to 1000	183	
1001 to 1500	60	
1501 to 2000	35	
Over 2000	35	
Total		530

TABLE IV

Year of Installation of Lighting Systems

Year	High Schools
1926	3
1927	2
1928	3
1929	14
1930	50
1931	28
1932	28
1933	44
1934	70
1935	74
1936	75
1937	85
1938	37

TABLE V

Cost of Installation of Lighting Systems as Reported by High Schools

	High Schools in Cities of Population Classes Indicated								Total
	1000 less	1001 2500	2501 5000	5001 10,000	10,001 25,000	25,001 50,000	50,001 1000,000	over 100,000	
$1000-Less	7	19	18	7	7	4			62
1001-1500	4	30	28	17	16	1	2		98
1501-2000	2	22	26	33	16	8	1	2	110
2001-2500		8	18	18	16	2	2	3	68
2501-3000	2		5	21	19	4	T	2	53
3001-4000		1	7	16	13	6	2	8	53
4001-5000				2	8	5	2	4	21
5001-10000		1	1	7	6	6	1	8	30
over 10000				1	2		2	9	14
Blanks	1	4	4	4	3	1		3	20

TABLE VI

Average total kilowatt output of High School and College Lighting Systems

High Schools in cities with populations of:	N	Minimum KW	Maximum KW	Average KW
1000 or less	16	12	57	40.31
1001 to 2500	75	18	96	49.30
2501 to 5000	101	20	100	53.54
5001 to 10000	120	30	262	65.20
10001 to 25000	98	25	180	61.00
25001 to 50000	32	25	142	73.70
50001 to 100000	11	40	168	73.73
Over 100,000	34	48	132	69.47
All High Schools		12	262.5	59.71

TABLE VII

Number of poles on towers per installation

Poles or Towers	High School Fields
4	1
5	2
6	47
7	4
8	240
9	7
10	144
11	4
12	8
13	1
14	9
17	1

TABLE VIII

Heights of poles or towers

Ht. of poles or towers	High School Fields
40' or less	26
41' to 45'	21
46' to 50'	83
51' to 55'	100
56' to 60'	164
61' to 65'	26
66' to 70'	20
71' to 75'	14
Over 75'	20

TABLE IX

Distance of poles or towers from side lines

Distance from side Lines	High Schools
15' or less	212
16' to 25'	151
26' to 35'	46
36' to 45'	30
46' to 55'	13
56' to 65'	7
66' to 75'	2
76' to 90'	2
Over 90'	20

TABLE X

Cost of operating lights per game on High School Fields.

High Schools - cities with population of:	N	Minimum Cost per game	Maximum cost per game	Average cost per game
1000 or less	16	1.50	10.50	6.145
1001 to 2500	80	1.80	25.00	7.287
2501 to 5000	97	2.50	25.50	7.578
5001 to 10000	114	1.20	20.00	9.218
10001 to 25000	100	2.00	45.00	10.628
25001 to 50000	34	1.50	25.00	11.485
50001 to 100000	12	4.00	30.00	12.316
Over 100000	36	3.80	55.00	11.625
All High Schools	489	1.20	55.00	9.235

TABLE XI

Percentage Increase in Gate Receipts at Night Games over Day Games in High Schools

	Increase in Gate Receipts								
Number of schools in cities with populations of:	50% or less	51% to 100%	101% to 150%	151% to 200%	201% to 300%	301% to 500%	501% to 700	701% to 1000	Over 1000%
1000 or less	2	1	3	3	2	1			
1001 to 2500	3	34	6	10	10	7	3	1	
2501 to 5000	12	26	12	15	17	11	3		
5001 to 10000	10	30	8	12	25	21	3	2	
10001 to 25000	3	22	11	14	20	7	3		1
25001 to 50000	3	9	4	5	4	2	1	1	
50001 to 100000	2	2		2		1			
Over 100,000	6	5	6	1	1	1		2	1
All High Schools	41	130	50	62	80	51	13	6	2

A Study in Testing in Gymnasium Class Basketball.

J. K. Kennedy.

Director of Physical Education and Intramural

Athletics for Boys

Westport Senior High School, Kansas City, Mo.

Summary of Data.

Positive points.		Negative points.	
Set up Shots	751.	Bad Passes	1084.
Spot Shots	418.	Personal fouls	413.
Free Throws	248.	Violations	374.
Assists	79.	Fumbles	265.
Twist Shots	64.	Excessive dribbling	117.
Individual Defense	33.	Off Balance Shots	45.
Pivots	15.	Leaving Feet	32.
Dribble	12.	Batting ball	10.
Bounce Pass	9.		
Total.	1629.	Total	2340.

Total--721 points.

There were 296 boys tested. Average score was -2.001. The range was from plus 40 to negative 24. 72% of sophomore classes made a negative score while 78% of junior-senior classes made a negative score.

Conclusions:

1. Gives the physical education instructor an opportunity to grade objectively the class under game conditions.
2. Has a decided motivating influence on the group.
3. More stress should be placed on ball handling during our fundamental skill drills.

A Study in Ball Handling in Teaching of Basketball Skills.

J. K. Kennedy.

Director of Physical Education and Intramural

Athletics for Boys

Westport Senior High School, Kansas City, Mo.

Summary of Data.

Long passes	136.
Short passes	640.
Set up shots	179.
Twist shots	42.
Spot shots	134.
Free throws	103.
Dribbles	78.
Pivots	58.
Catch	776.
Catch while running	42.
Tipping	188.
Peripheral vision	135.
Total.	2531.

One individual checked through 36 class periods. Average daily handling 70.30. Average enrollment 59.20.

CHART I. SUMMARIES OF PREVIOUS STUDIES ON NIGHT LIGHTING OF FOOTBALL FIELDS

City	Population	School enrollment	Year of installation	Cost of installation	Number of poles	Height of poles	Distance from sidelines	Total K W	Cost of lights per game	Average gate before lights	Average gate since lights	% increase in Receipts	% increase in attendance	Playing conditions as good at night	Difficulty in scheduling games	Administrative problems	Field used for other purposes
Chippewa Falls Wis. 1	9,539	552	1935	1000	8	55	15Yd. 40Yd.	51	5.43	50	200	200%	500%	Not Quite	No	No	Not Much
Willmar Minn. 2,3,8	6,173	1020	1936	2800	8	52	20	72	7.00	60	250	400 235.3 353	500	Yes	No	None	No
Eveleth Minn. 2	8349	1993	1936	15000	11	70	30-50'	262.5	20.00	60	120	100	100	Yes	No	None	Base ball
Lewiston Pa. 5	13,357	1800	1933	2312	8	60	20	40	10.00	100	800	700	60	Bet-ter	Yes	No	No
Etna Pa. 5	7,000	800	1933	2000	8	75	50	50	10.00	50	250	500	500	No	No	No	Yes
Abilene Kans. 6	5,658	470	1930	1772	5	75	15	63	12.00	100	200	100	80	Bet-ter	No	No	No
Colby Kans. 6	2,153	287	1934	1575	8	50	15	48	5.00	100	200	100	100	Bet-ter	No	No	Yes
Kenton Ohio 7	7,067	546	1937	2312	8	65	20	87.5	75.00	75	250		400	Bet-ter	No	No	No
Thomasville Ala. 9	1,504	300	1937	1448	8	60	20	48	7.00	60	180	200	100	Bet-ter	No	No	Yes
Blissfield Mich. 4	2,103	353	1937	2100	10	60	15	72	3.00	60	100	75-80	100	Yes	No	No	Yes
Grand Lodge Mich. 4	3,572	403	1937	6794 lab.	8	55	20	36	8.00	22	150	600	300	Yes	No	No	No
Wilmington Ohio 7	5,332	530	1937	2319	8	50	25-50	72	8.50	150	500		100	Bet-ter	No	No	Yes

A STUDY OF THE RELATIVE AMOUNT OF TIME OF DIFFERENT TYPES OF PITCHED BALLS

BY JAMES D. KENNY

In order to throw some light upon the question of the amount of time consumed in throwing a ball overhand, underhand and sidearm, this experiment was performed.

APPARATUS

1. A Synchronous Timer measuring time in hundredths of a second.
2. A make relay and a break relay.
3. A target 3 feet by 4 feet made of triple weight canvas.
4. A regulation baseball to which a small piece of tin foil was attached so that a complete circuit was made when the ball was held by the pitcher.
5. A rubber glove to prevent a shock.
6. Twenty-five feet of single strand copper wire and twenty feet of rubber coated wire.
7. Six dry cell batteries.
8. Aluminum foil.

PROCEDURE

The Timer is hooked to a 110 volt source and the pitcher grasps the ball thus forming a complete circuit and also keeping the break relay open. At the same time the relay in the target circuit is on the make because of a complete circuit established by a piece of aluminum foil which connects the ends of the wires. As a result the target relay is closed and the ball relay open as the pitcher prepares to deliver the ball. When the ball is released, the ball relay circuit is broken and the Timer starts. The ball on hitting the canvas tears the aluminum foil and stops the clock.

Twenty-one members of high school, college, amateur, semi-professional and professional teams took part in this experiment. All the subjects were pitchers. Seven were natural overhand throwers, seven natural sidearm throwers and seven natural underhand throwers.

The men were cautioned to throw as hard as possible on every pitch. Each participant threw five overhand fast, five overhand curve, five sidearm fast, five sidearm curve, five underhand fast and five underhand curve. If a man indicated he was becoming fatigued, the experiment was stopped and he reported on another day to continue.

This experiment was conducted in the basement of a gymnasium which had a dirt floor. It was felt that atmospheric conditions would be the same from day to day inside. A home plate and pitching rubber were inserted sixty feet six inches apart which is regulation pitching distance.

RESULTS

1. Average time of subjects overhand fast was .582 ($\pm$.0047) seconds.
2. Average time of sidearm fast was .596 ($\pm$.0056) seconds.
3. Average time of underhand fast was .628 ($\pm$.0051) seconds.
4. Average time of overhand curve was .651 ($\pm$.0053) seconds.
5. Average time sidearm curve was .660 ($\pm$.0057) seconds.
6. Average time underhand curve was .686 ($\pm$.0054) seconds.

Address by Les L. Warren,
Director of Recreation and
Community Use of Schools,
Kansas City, Missouri.

March 31, 1939 - Sioux City, Iowa.

RECREATION HOBBIES OF KANSAS CITY SCHOOL TEACHERS

Recreation defined means relief from toil in activities pleasurable and wholesome. These selected activities may be either active or passive in nature, but regardless of their type should serve definitely as a means of mental, physical and emotional relaxation for the participant. The number of recreation hobbies in which one may engage is almost without limit as any community provides opportunities for its people to engage in some form of athletic games and sports, music, arts and crafts, nature study, dramatics and other worthwhile activities that should be used as a profitable hobby by those interested.

It has been found true that the old adage "All work and no play makes Jack a dull boy" applies to adults as well as children, and that if given the opportunity, adults invariably take advantage and actively participate in worthwhile programs of recreation.

The Recreation Department of the Kansas City, Missouri Public Schools, in an effort to serve the teachers of the school system in a definite way, recently sent out a questionnaire to all teachers in the city. The reason for this research was two-fold: First: That the Recreation Department be able to provide a program of varied recreational activities, passive and active in nature, for all teachers, this program to be set up in accordance with capabilities and desires of those interested in the promotion. Second: That the Kansas City, Missouri Teachers College, desirous of offering in extension classes any type of physical education or recreation courses, might have a more definite knowledge of the real needs and set their program accordingly.

The questionnaire returns, I believe, supplied knowledge of what actually was needed and desired by the teachers. The questionnaire was entirely optional, the request being made that insomuch as a program was being planned for the benefit of the teachers, those interested could make as complete returns as possible. The signing of the questionnaire was also optional as we were interested only in receiving frank and honest returns. This questionnaire was divided into five main divisions, as follows: Home Recreation, Activities Away from Home, Reasons Why I do not Engage in Recreation Activities, Recreation Activities a Teacher Desired to Have the Recreation Department Promote, The Types and Kinds of Recreation Courses Desired at Teachers College.

More than fifty per cent of the teachers voluntarily filled out and returned the questionnaire to the Recreation Office. The returns proved to be quite interesting and served our purpose amazingly well. It was found that fifty per cent of those making returns were living at home, twelve and one-half per cent living in private homes, twenty-five per cent in apartments or hotels, while the remaining twelve and one-half per cent rented homes or lived in boarding houses.

It was also found that individual doctor bills of the teachers ran from an average of $30.50 per year to the unusual $125.00 per year.

Activities engaged in most frequently at home found most teachers listing same in the order following: Radio, reading - fiction and non-fiction, entertaining, cooking, card playing, music, writing, photography, gardening, needle work, woodcraft, antique collecting and stamp collecting.

Listed as activities engaged in at home once in awhile, more than one-half of the teachers listed card playing at the top, with the others as follows: Radio, gardening, cooking, reading, needle work, writing, entertaining and music.

Other activities receiving but a few votes are quite varied in type and run all the way from making of scrap books, chinese checkers, walking, poultry raising, interior decorating to letter writing, astronomy and other such activities.

Activities engaged in away from home most often listed in order as follows: Card playing, picnics, attending movies, dancing, parties, swimming, music, hiking, nature study, riding, golf, tennis and fishing.

Those activities engaged in away from home once in awhile find picnics at the top of the list, with the others as follows: Card playing, hiking, swimming, parties, boating, nature study, fishing, camping, tennis, riding, dancing and skating.

Other activities that appear of great interest to the teachers include: Concerts, movies, travel, driving, book reviews, clubs, camps, theatres and art galleries.

Question number three which states, "I would enjoy additional recreation activities but do not because I am handicapped by the following" found the teachers responding as follows: Lack of finances (Approximately two-thirds of the teachers listed this reason first), lack of proper transportation, extra-curricular activities interference, home duties, lack of time and health.

In spite of the fact that few teachers had suggested having engaged in athletic sports to any great extent, in reply to question number four which asks the teachers to suggest recreation programs in which they would be interested, this list was topped by the athletic sport activities including swimming, golf, tennis, bowling and skating. These activities were followed up by social dancing, gymnasium work, book reviews, arts and crafts, parliamentary law, nature study and fly casting.

The final question dealt with the type of courses in which the various teachers might be interested if offered at the Kansas City, Missouri Teachers College. In this return much interest was manifested in the promotion of an Individual Sports class, instruction to be offered in the various individual sports that hold a definite carry-over value. Social recreation was listed as second choice; folk dancing and clog dancing as third choice; dramatics, fourth; playground planning and administration, fifth; games of high and low organization, sixth and handicraft, seventh.

Since the time returns have been made and tabulated, a course of Individual Sports was promoted at Teachers College and taught by myself.

The course proved very successful, and interest was maintained to the extent that, at the completion of the course, requests were made for its continuance for an additional semester. On a selection made by the students, instruction was given in the following individual sports: Golf, archery, bowling, table tennis, dart baseball, paddle tennis, deck tennis, shiffleboard, tether ball and aerial darts. Trips were made to the driving tee for golf instruction and to the bowling alley for bowling instruction. Lectures and demonstrations were made during the course by city champions in the various sports. Other activities discussed in the course included: Hand tennis, hand ball, fly casting, riding, skating, fencing, swimming, tennis and lawn bowling. It has been recommended that this course be enlarged to quite some extent next fall.

LEADERSHIP TRAINING SECTION
RECREATION DIVISION, A.A.H.P.E.R.
SAN FRANCISCO, APRIL 4 - 9:00 AND APRIL 5 - 2:30

A TENTATIVE LIST OF
SUGGESTED TOPICS FOR DISCUSSION
BY PANEL MEMBERS AND OTHERS

1. How can colleges and universities augment their present staffs to give the additional training necessary with the recent official inclusion of recreation in responsibilities of physical education?

2. Should the American Association for Health, Physical Education and Recreation set standards of facilities needed for adequate presentation of recreational experiences to workers in training?

3. What laboratory facilities and experiences should be provided undergraduate and graduate students?

4. Are space areas available on which to conduct additional recreation training experiences, i.e., play areas, game rooms, theatre stages and workshops, craft rooms, art studios and galleries, nature study and museum rooms, music studios and similar areas where the broad program of recreational interests may be presented so that prospective workers may "Learn by doing"?

5. Should sociology or physical education be the location of leadership in our colleges and universities in the preparation of recreational workers?

6. Should unified administration of student recreation opportunities on the campus be a corollary to the offering of professional courses in this field?

7. Will the official inclusion of recreation in the program of Physical Education demand closer scrutiny of candidates for training before admission is granted? What tests and evaluations are needed? Will colleges actually select and choose between prospective teacher-candidates or will additional candidates be welcomed on a "student-number" basis?

8. What should be done in the scheduling of teaching time of University staff members to allow for time spent in necessary leadership of campus recreations on Saturdays, week-ends and evenings?

9. Should the public school physical education teacher have his working schedule "staggered" to allow for time spent in leadership outside of the usual school day hours?

10. How can the accumulation of a large number of case studies be collected to determine the effect and relative importance of such factors as sex, age, education, nationality, income and natural environment on the use of leisure?

11. How can there be made case studies of group behavior, i.e., the study of the leisure time behavior of the communities, the investigation of the effect of climate and topography, type and status of economy, opportunities provided by commercial and non-commercial recreational agencies?

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