

A PROGRAM OF PHYSICAL EDUCATION FOR THE GRADED SCHOOLS
OF WASHINGTON COUNTY

by

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INTRODUCTION

The pioneers of America were of a different type from the men and women of today. For several reasons physical recreation in the pioneer period was not as essential as it is today. A large part of the travel was afoot or on horseback. Labor was diversified; one day one type of work was performed and the next day a completely different type was taken up. As a result of this, the development of systematized physical education in the United States was slow. With the coming of machinery, and the shortening of the working day, more leisure time was allowed for the recreational side of life.

According to Mitchell and Mason (10), "The leisure-time problem has so forced itself upon the attention of every stratum of our society that all educators and civic leaders are faced with the responsibility, not only for meeting the demands of the immediate situation, but also for exercising foresight in social planning for the refinement of future recreational standards and for the improvement of individuals' recreational appreciations."

Therefore, the American people have been turning more and more toward physical education for their play and recreation. The feasible time to begin physical education is

with the child. This has been acknowledged in many parts of the United States by the adoption of state programs of physical education. The author has collected programs from a number of different states of the Union that require physical education in some form in their grade school curricula.

Facts have been collected from the eleven graded schools of Washington County, Kansas, to get an idea of the type of program of physical education that could be worked out to fit that particular environment. These facts revealed no systematized program of physical education in any of the graded schools of the county.

The purpose of this study is to outline an ideal program of physical education for the graded schools in Washington County, Kansas; to plan an organization of play and recreation so that it will be a systematized and unified branch of education, claiming its share of attention and time.

Situations will be cited as they now exist in the other states and compared with the present condition in Washington County.

Lastly, we shall combine and choose workable units from the different state programs and attempt, with them as a basis, to work out what seems to us to be an ideal program of physical education for Washington County.

GENERAL SURVEY OF LITERATURE IN THIS FIELD

The words, physical education, call forth a variety of responses. To some they mean one thing; to others something quite different is implied. To many, however, the words suggest physical qualities mainly and the first word, physical, dominates the second, education. It is true perhaps that a generation ago, exponents of this activity were concerned mostly with an education of the physical, but it is even more true today that present efforts in the schools and colleges are directed toward an education through the physical. This newer emphasis is an attempt to interpret in practice the implications of the theory of unity of the individual.

Although many educated persons continue to speak of education as if it were merely a matter of mental training, it is obvious that such a view is partial and limited. We shall recognize then, that the person who is educated only in the arts and sciences is as unprepared for life as the athlete who is educated only in physical performances.

Williams (17) defines physical education as, "that which sees, in measures insuring bodily health and the right kind and amount of motor activity, an avenue of approach through which the whole individual may be influenced

to good, in mind and character as well as in body: it employs the word physical to denote the means and not the end."

At the White House Conference on Child Health and Protection, President Hoover (4) emphasized the fact that ten out of every forty-five school children in the United States are defective. By the corrective departments established in schools, it has been made evident that the average potential handicap, in many instances, is not always obvious during childhood. Detection has been brought about by physical educators who examine the children with a discriminating eye.

In Maroney (9) we are told that physical education is of vital importance as a part of the school and community life of pupils, teachers, and parents. This subject is steadily gaining the serious attention of leading educators, business men, and physicians throughout the United States. A course of study is given in order that, even though different communities have individual problems, the needs of any average community might be satisfactorily met by efficient use of the material of such a course.

Nixon and Cozens (12) dwell upon the great need of trained physical educators in the teaching profession

today. They give material that would be very helpful to the administrator who wishes to promote an effective program in physical education.

Broome, (5) in an address given before the Health and Physical Education Section of the National Education Association says that physical education and health education should provide a program of supervised activities for all pupils as a required part of school work. This work should be sponsored by the regular physical-education instructor and should be ranked as a curricular subject. It should be evaluated and credited for graduation.

One of the most important but difficult problems in the administration of a physical-education and health program is that of convincing the public and all the teachers that the physical and health program is a vital part of the educational plan and not merely an appendage; that it is not only as important as any other subject of the curriculum but is more important and should receive more time and skillful treatment. Broome (5) says, "If it should ever become my good fortune to build a curriculum for a school system of a newly organized community, a systematic program of physical and health education would be the center of the curriculum, around which the rest would be

built."

Wood and Cassiday (18) sum up the following points as fundamental in a rational program of physical education:

1. It is necessary to have an out-of-doors program of big-muscle activities which will be developed from a scientific knowledge of a child's characteristics and practical needs.

2. It is important to correlate these exercises with other school subjects whenever possible.

3. This work is to be taught with the definite aim of developing social and moral qualities by providing situations in which the child may meet social problems and learn wholesome social and ethical responses to given situations.

4. Problems and projects are the natural method of teaching physical education.

In Neilson and Van Hagen (11) we find more usable material for physical education than in any other single work that has been studied. It contains a large number of games, relays, and activities suitable for all different occasions and levels in the elementary school. Neilson and Van Hagen (11) is one of the best works in this field and should be in every school library.

AIMS AND OBJECTIVES OF PHYSICAL EDUCATION

Aims and objectives in physical education have been studied by Williams (17), Maroney (9), Wood and Cassidy (18), Nixon and Cozens (12), Neilson and Van Hagan (11), and others. From a digest of the above works the following aims and objectives have been determined.

Aims

1. To develop a child's instinctive tendencies into right habits and into emotional responses which in turn will develop those traits of character necessary to enable the individual to live happily with his fellow men.
2. To develop to the fullest extent every part of the child's growing body.
3. The California State Physical Education Act (11) states that the purpose of physical education in California is:
 - (a) "To develop organic vigor, provide neuromuscular training, promote bodily and mental poise, correct postural defects, secure the more advanced forms of coordination, strength and endurance, and to promote such desirable

moral and social qualities as appreciation of the value of cooperation, self-subordination and obedience to authority, and higher ideals, courage and wholesome interest in truly recreational activities.

- (b) To promote a hygienic school and home life, secure scientific supervision of the sanitation of school buildings, playgrounds and athletic fields, and the equipment there of."

Objectives

1. Activities to promote normal growth and organic development:
 - (a) A program of health guidance and health conservation,
 - (b) To provide situations to develop strength and endurance,
 - (c) Knowledge and desire for proper posture and bodily carriage,
 - (d) Development of neuro-muscular control necessary for prompt and accurate response of movement.
2. Situations to develop the right mental attitude through physical activity:

- (a) Provide for development of initiative, leadership, and fellowship,
 - (b) Promote loyalty and obedience to authority; playing the game according to rules,
 - (c) Foster self-reliance, self-control, self-discipline,
 - (d) Encourage courtesy and thoughtfulness for others,
 - (e) Develop truthfulness and honesty,
 - (f) Build up a spirit of fair play, or sportsmanship,
3. To create in youth a desire for physical activity and for games that will carry over into adult life:
- (a) Create a desire for outdoor life such as camping, fishing, and hunting,
 - (b) Develop a desire for less strenuous games such as croquet, golf, and horse-shoe pitching,
4. To develop citizenship through leadership and a respect for the commands or decisions of officials,
5. To provide situations for the development of personal traits such as self-confidence, poise, alertness, and courage,
6. To supply special activities, or exercise

adapted to individuals with physical defects,
corrective work,

From the above lists of aims and objectives has been developed an inclusive aim with objectives to lead to that aim.

THE ESSENTIAL AIMS AND OBJECTIVES OF PHYSICAL EDUCATION

An Inclusive Aim

Physical education should aim to provide opportunities for the individual to act in situations that are stimulating, satisfying, physically wholesome, and socially sound. It should eliminate through the use of corrective procedure all remediable physical defects and produce a better physique in children who are thus handicapped, whether the defects be congenital or acquired. This can be accomplished best by the services of well-trained people working with adequate facilities and equipment. The greater emphasis on a prevention program should occur in the elementary school. This will permit the correction when the child's body is the most susceptible and amenable to such correction, and it will also lessen the amount of work necessary in the secondary school.

This preventive program can be effective only when the causes of the defects are found and steps taken to eliminate or minimize them.

General Objectives

1. The development of organic vitality,
2. The development of many specific neuro-muscular skills,
3. The development of proper attitudes and ideals toward physical activity,
4. The establishment of desirable habits of conduct.

Specific Objectives

1. To prevent handicaps and improve physical efficiency,
2. To improve the individual's posture,
3. To decrease mental strain and improve mental health,
4. To develop symmetry, control and grace of body movement,
5. To encourage ability to meet physical emergencies,
6. To increase alertness and quick response,
7. To evolve an active response to rhythm,
8. To build up courage, self-control, self-sacrifice,

courtesy, kindness, loyalty, obedience, honesty, cooperation, and initiative,

9. To create an intelligent and healthful interest in physical activity and give a fund of activity material for use in leisure time,
10. To foster an interest in the physical welfare of others,
11. To increase the desire for wholesome associations and recreation,
12. To bring out the proper spirit toward victory and defeat,
13. To foster good character,
14. To develop the qualities inherent in leadership.

Objectives From The Administrative Standpoint

1. To provide facilities as attractive as possible,
2. To furnish equipment as safe as we can make it, It must be inspected regularly and kept in safe condition,
3. To supply intelligent leadership, which respects the intellectual aspects of life and which understands how to eliminate from the personal relationship of children those conditions which lead to undue mental and emotional stress and strain,

4. To bring together in the physical-education environment homogeneous groups,
5. To provide leadership marked by desirable social-moral habits, attitudes, and ideals, and equipped with a knowledge of the mechanism of social-moral training, and with a proper sense of responsibility.

THE NEED FOR PHYSICAL EDUCATION

There is today a growing need for physical education and play. That this need is greater today than in the past is obvious from a study of the modern activities of man compared with his activities in the past. The present mode of transportation requires very little muscular exertion. The manufacture of almost all staple articles is done by machinery in which man directs the machine by a semi-automatic system of controls.

If the individual is to make the most of the modern leisure time, either in childhood or later as an adult, a knowledge and skill in games and sports must be developed. In this way a child's natural joy in play will be established and preserved.

That there is a growing need for physical education is shown in a number of different ways. First: the need

in respect to safety. Second: the need in respect to health and strong physique. Third: the need in respect to satisfying human wishes. Fourth: the need in respect to social training. Let us expand these four needs.

Safety

Modern life has brought with it many hazards. The speed of transportation and the intricate farm machinery are examples of conditions that cause thousands of deaths annually by accident. A large percentage of these accidents could have been avoided if the individuals responsible for them had been given a background of physical training; if they had been taught to think and act quickly; if their neuro-muscular ability had been properly developed.

Health and Strong Physique

Physical education, or play, is very essential to health and strong physique. Play, or recreation in the open air or in the gymnasium, develops the following sets of vital organs more fully and thoroughly than is possible otherwise, first, the heart and circulatory system; second, the respiratory system; third, the digestive system; fourth, the excretory system; and fifth, the nervous

system.

In a large percentage of homes in Washington County chores have been eliminated to a great extent by modern conveniences, such as the tractor, which eliminates feeding, currying, and harnessing the horses at least twice daily. Natural gas is a very common fuel used in Washington, Clifton, Linn, Greenleaf, Barnes, Hanover, and Haddam. This does away with carrying fuel, building fires, and carrying ashes formerly done by the boys. Electricity is available in all the homes of the towns and in a large percentage of the country homes through the use of wind generators. This does away with hand labor for water pumping. The electric or gasoline washing machine takes most of the hand labor out of the washday, and the vacuum cleaner relieves the house-wife on cleaning day.

Satisfying Human Wishes

In the modern world of specialized labor, physical development or play is needed to supply a generalized use of the muscles in a normal way. Specialized labor does not command the interest of the worker as does general work. The lack of opportunity for expression of the creative, and the lack of opportunity for sociability all tend to leave the individual unsatisfied and fundamentally

unbalanced. He needs an opportunity to talk and philosophize with his fellow men and to exercise the other muscles of his body which his specialized job does not use.

Social Training

In this modern life of association and cooperation people must work together, must unite their individual efforts into one large workable unit. Where can the child get better training for this than in a directed and well organized game? In the game there are rules to be followed and officials to be obeyed, and cooperation or team work is essential.

The play-day program that will be set forth in detail later in this work is an ideal place for the child to learn to associate with his county schoolmates. By dividing the schools up into different teams at these play-days, ideal situations are furnished to develop new acquaintances. The individual will be allowed freedom to exercise and develop his natural gregarious nature.

It is hoped that these play-days will be conducted in such a way that not only the children but the parents will enjoy them to the extent that smaller local community play-days of a similar nature will develop in the more remote rural districts.

According to Mitchell and Mason (10) Burns, a social worker in Chicago in 1907 said, "To provide a probation district with adequate play facilities is co-incident with a reduction of delinquency of from twenty-eight per cent to seventy per cent, or forty-four per cent as an average."

According to Mitchell and Mason (10), Marks asserts, "Owing to the opening of playgrounds in Anaheim, California in 1924, juvenile delinquency decreased seventy per cent in that year compared to what it was in the previous year."

The report of the White House Conference (4) credits Lee and Brown with an experiment in which they divided 746 children into two groups. They gave all the children an identical examination or posture rating and then they gave one group physical education and posture training. The other group proceeded with the normal school work. At the end of the year they gave another examination. "In the class without special training ten per cent had improved, twenty-three per cent had worse posture, and sixty-seven per cent received the same grade that they had formerly. In the posture class sixty-seven percent had improved, one per cent had regressed, and thirty-two per cent had not changed."

Pollock (14) says, "On April 9, 1929 at the Jenner Elementary School in Chicago, impressions of 223 pairs of feet were taken. The results were divided into four

classes.

| | |
|---------------------------------------|------|
| Group A or normal | 126, |
| Group B weak feet with arch strain | 30, |
| Group C beginning stages of flat feet | 38, |
| Group D advanced type of flat feet | 29. |

As a whole 56 per cent were normal and 44 per cent had some sort of foot defect.

Corrective classes were started on Monday, April 15. Groups B, C, and D were given corrective treatment averaging twenty-eight periods of thirty minutes duration over a length of seven weeks. At the end of the time impressions were again taken which gave the following data.

| | |
|----------------------|-----------|
| No improvement | 23 cases, |
| Slight improvement | 55 cases, |
| Moderate improvement | 17 cases. |

That is to say 75 per cent showed some sort of improvement and only 24.3 per cent showed no improvement.

The above experiments have shown that physical education, if conducted properly, is a necessity to the growing child, in that it may improve or completely correct physical defects.

In this period of social and economic adjustment, taxpayers are asking educators to eliminate nonessentials and frills. It is not that people have lost faith in modern

education, but that expenses must be cut in education as well as elsewhere. One of the fields most frequently questioned is physical education. Is it a nonessential, or is it indispensable? In attempting to solve this serious problem, it is important not to omit services which may for the moment appear as nonessential, but which are in fact indispensable.

The National Committee on Physical Education (16) lists the following reasons for physical education's being in the curriculum today.

1. " Human vitality is partly hereditary and partly developmental. The power of vital organs is therefore dependent upon the developmental physical activities of the young. In a sedentary and industrialized society, physical education is peculiarly indispensable for the development of the vital organs of children and for the adequate functioning of these same organs in adults.

2. Leisure time has increased tremendously in the last decade, and every indication points to a shortening of the working day. There will be leisure in amounts undreamed of a generation ago. This calls for types of education that will serve the play-time of the whole population. Therefore, in our modern world physical education for leisure time becomes indispensable.

3. Physical education is indispensable also for the normal growth and development of youth. When children and young people are denied the growth and health that comes from physical activities in educational institutions or in community life, the saving in such expenditures will be more than offset by the increase of costs for hospitals, reformatories, and jails.

4. At one time education was merely a training of the mind, but the idea is everywhere gaining ground that education must deal with the whole man and not with just part of him. Out of this conception has come the conviction that the good life exhibits play, laughter, recreation, and joy not as competitors with mental accomplishments, but as essential elements in full and fine living. For this physical education is indispensable."

If we expect to train youth for complete and worthy living, the schools and educational institutions must not abandon physical education. In this machine age, with its deadly monotony of routine labor, its emphasis upon mechanical efficiency, and its trend toward a socialized community life, physical education has become increasingly a necessity. To neglect the education of our young people in physical education, or to fail in maintaining their interest in wholesome play, is to court serious social problems.

PHYSICAL EDUCATION IN OTHER STATES

Let us examine the programs of physical education for the graded schools of other states. Through correspondence with various state superintendents, we have received state courses of study including physical-education programs from the following states: Alabama, California, Connecticut, Delaware, Florida, Illinois, Indiana, Maine, Massachusetts, Michigan, Minnesota, Missouri, Nebraska, New Hampshire, New York, North Dakota, Ohio, Pennsylvania, Rhode Island, Texas, Utah, Vermont, and Wisconsin.

The latest reports show that thirty-nine states of the Union have laws on their statute books pertaining to physical education and health for their elementary and secondary schools. This growth of physical education is due in a great part to the World War.

Since this war there has been no need for argument to impress upon people in general, and legislators in particular, the need of requiring physical and health education in the public schools. Examination of men between twenty-one and thirty-one years of age at the time of the war showed that one out of every three was physically unfit to bear arms. Before the war practically no states required physical training. Since that time instruction in physical

education is becoming practically universal and is generally required by statute.

California, Connecticut, Delaware, Indiana, New York, Pennsylvania, and Wisconsin have the most definite and thorough systems. These states require of all students enrolled in school attendance in physical education classes regularly.

The students are graded on their work, and in some states physical education credits are required for promotion. The average weekly time spent per pupil in physical education and health in this group of states is 180 minutes. This is in excess of recess periods. All of these states except Wisconsin require annual physical examinations by a doctor. In Wisconsin the physical director gives the examination. Connecticut requires the instructors of physical education to take a thorough course of physical education at the state normal school. Indiana requires their physical-education teachers to have thirty college hours in that field.

Maine, Massachusetts, Michigan, Minnesota, Missouri, New Hampshire, Ohio, Rhode Island, Utah, and Vermont have similar programs. These states with the exception of Maine require an average of about 155 minutes a week of physical

and health education from all their elementary school pupils. Maine will excuse from physical education farm children that have too much home work to do or children that walk a long distance to school. These states do not require an annual physical examination but instead have health inspection by the instructor in physical education. The pupils are graded on their work but are not allowed credit toward promotion from it.

To the lower class belong the remaining states of Alabama, Florida, Illinois, Nebraska, North Dakota, and Texas. These states require physical education and health training on an average of about 80 minutes a week or twelve minutes a day allowed for physical education. North Dakota requires physical education for only the upper three grades, Missouri for the lower six. The other states in this group require physical education for all grades. Qualifications of teachers are not mentioned. Grades are not given or credit recognized in these states.

The question of proper instruction varies greatly in the different states, but in general it is handled in three ways, depending of course, on legislative enactment, the size of the school, and the type of students.

From a careful examination of the courses of study of the states listed above, we find that the most general

method is to have a full time physical-education director. This director spends his entire time with the pupils, either in instructional periods, where health and sanitation are taught, or in the gymnasium or on the playground.

The physical director may have a group of squad leaders, which he chooses from the school to help him carry out new activities and exercises. He meets with this select group and gives them instructions previous to the regular play period. These squad leaders hold their positions for a short time only; thus all students are given a chance to develop leadership.

Another quite common method is the director-teacher method. Instead of the physical director's using squad leaders he uses the teachers. They have meetings at regular weekly intervals and plan the weeks physical education program in advance. The teachers are responsible to the physical director.

The average time spent per week for the entire group of states that require physical education is about 150 minutes, or 30 minutes a day. This time is in excess of recess periods. It is usually broken up into relief periods, instructional periods, and supervised-play periods. The relief periods are usually very short, from two to five minutes in length. They are taken in the middle of

study periods to relieve fatigue and restlessness. At that time windows are usually opened and the room completely ventilated. Physical big-muscle activity, such as, body bending or leg and arm exercises is the principal technique. The instructional period is for the purpose of teaching the rules and technique of the games and activities to be used in the free play period. Ordinarily health education and sanitation are taught at this time also.

The supervised play period, which usually comes just before recess and extends into recess, is the time for organized play. The teacher is present to guide and direct, and take part in the activity. Such a teacher is not a disciplinarian to see that pupils obey rules; rather, the teacher gives the impression of simply playing with the pupils for enjoyment. Such a teacher tries out the new games and stunts that have been talked about in the previous instructional period. Thus the supervised play period is the climax of the day's physical activities.

AN IDEAL PHYSICAL EDUCATION PROGRAM FOR A SMALL GRADED SCHOOL

Enrollment

All pupils in the school should be enrolled in physical education classes. Pupils who are physically

handicapped should not be excused from physical education but should be given corrective measures to fit their needs.

Time Allotment

There should be a regular daily period of physical education, thirty minutes in length, in addition to the recess periods. This should be divided into a ten- and a twenty-minute period. The ten-minute period is to cover instruction, rules of games, health and sanitation. The twenty-minute period is to directly precede the last recess of the day. This time is to be spent in supervised group activities. This period will extend into the recess. The last five or ten minutes of the recess will be unsupervised to allow free play and individual activity.

Physical Examination

There should be an annual physical examination given to every child attending school. This examination should be given as early in the school year as possible. It should be given by the doctor in charge of county health and paid for by the county.

This examination should be a complete physical check-up. It should include a testing of the vital organs such as lungs, heart, eyes, ears, nose, and throat. It should

also include posture tests for correct bodily mechanism, this would include spine, trunk, and foot troubles.

Reports of these physical examinations should be made in duplicate form on special cards. The original card is to be sent home and the carbon copy is to be filed in the physical directors office for reference. No child should be allowed to continue in school without a physical examination but he might have the privilege of having his own family physician make the examination provided that this physician is a licensed M. D. Any cost developing from such procedure, however, should be born by the individual and not by the school.

Supervision

In institutions large enough to allow it, a full time physical director should be hired. He should have complete charge of physical activities through squad leaders or teachers or both. He should have complete control and be personally responsible for all physical activity in connection with the school.

In smaller schools, the typical situation, if a physical educator is to be available, it would be the duty of the present high-school athletic coach. He should be made a part-time teacher for the grade school, and a part of

his teaching load in the high school would be removed. It would be his duty to supervise the different teachers of the grade school--to hold special meetings with them and plan their physical education program in advance in the same way social studies or any other course is planned.

The classroom teacher would then be responsible for carrying out the plans. If the activities are to be worthwhile the teacher will have to enter into them wholeheartedly, which means the one in charge must have qualities of leadership. The personal contact of the teacher with the children and the confidence that they will gain in her through their play associations will give her an opportunity for an insight into the inner characters of each child. This is impossible where there is no personal contact with their physical activities. By this means the teacher would become better acquainted with the pupils. She would therefore be far better prepared to teach the core curriculum in the class room.

The purpose of the recess periods in the middle of the morning and afternoon is to afford relaxation from physical inactivity and from mental strain. Play should take place in the open air, weather permitting, and be so organized that all children will get the amount of vigorous exercise needed. This will not be the case unless the teacher is

on the grounds as one of the contestants or players and not as a policeman.

Physical-education teaching should consist of organizing and leading rather than of driving. It should direct and assist in such new games and activities as will develop both mind and body properly.

Facilities

The Playground. The playground should be located adjacent to or near the building to permit better supervision and to allow for its use without great loss of time. It should be sufficiently large to permit a definite section to be assigned to each teacher. Space should be allotted for the play of such games as baseball, volleyball, basketball, and track by both boys and girls. There should also be space for the less active games.

The Gymnasium. Many graded schools are in the same building with the city high schools and so will have access to the high school gymnasiums. Some of the newer elementary-school buildings have provided gymnasium-auditoriums. In either of these cases the grade school will have access to the gymnasium, and a definite physical-education program can be planned for the year.

The Classroom. At best the classroom is a very poor place for indoor physical education, yet it is all that a large percentage of our schools have to offer. Movable seats will clear the floor and assist greatly in changing a classroom to a playroom. This will allow for a greater variety of activities.

Equipment. The amount of equipment in an ideal school will of course depend upon the available play space, approximate number of students enrolled, and the supervisors available. The following list is suggested as a minimum requirement for a school of 100 pupils. In larger or smaller schools the equipment would be changed to fit the need.

1. For the playground:

- (a) Playground ball diamond, and backstops,
- (b) Two complete tennis courts and backstops,
- (c) Basketball goals,
- (d) Volley ball court,
- (e) Balls, bats, outseam basketball and volleyball,
- (f) Jungle bars, giant stride,
- (g) Two banks of swings of three each,
- (h) Two banks of tetter-totters of three each,

2. For the gymnasium:

- (a) Basketball facilities,

- (b) Volleyball court, net and ball,
 - (c) Mats,
 - (d) Chinning bar,
 - (e) Horse,
 - (f) Climbing rope,
 - (g) Hand equipment--indian clubs, wands, and small balls.
3. For the classroom:
- (a) Bean bags,
 - (b) Bean bag boards,
 - (c) Inflated balls,
 - (e) Individual jumping ropes.

THE PRESENT CONDITION OF PHYSICAL EDUCATION IN WASHINGTON COUNTY

The present condition of physical education in Washington County is set forth clearly in Table 1, data obtained from a questionnaire (see appendix) sent to all the graded schools of the county.

This shows clearly the deplorable lack of physical education in the county. One school, Greenleaf, out of the eleven, requires physical education; and it has only three-fourths of an acre of play space for 125 pupils. No school in the county has a school nurse, and only one

Table 1. Tabulated Results of Questionnaire.

| Name of School | Barnes | Clifton | Greenleaf | Haddam | Hanover | Hollenberg | Linn | Mahaska | Morrowville | Palmer | Washington |
|---|-------------|---------|-----------|--------|---------|------------|------|---------|-------------|--------|--------------|
| Enrollment, Grades 1-8 | 76 | 168 | 125 | 81 | 87 | 37 | 58 | 52 | 47 | 31 | 203 |
| Teaching staff | 4 | 4 | 4 | 4 | 4 | 2 | 3 | 3 | 3 | 2 | 8 |
| Pupils per teacher | 19 | 42 | 31 | 20 | 22 | 19 | 19 | 17 | 16 | 16 | 25 |
| Grades per teacher | 2 | 2 | 2 | 2 | 2 | 4 | 3 | 3 | 3 | 4 | 1 |
| Required Physical Education | no | no | yes | no | no | no | no | no | no | no | no |
| College credits in Physical Education | | | yes | | | | | | | | |
| College credits in Physical Education | | | 21 | | | | | | | | |
| Where taken | (Pittsburg) | | | | | | | | | | |
| Daily time spent | 1 hr. | | | | | | | | | | |
| What time of day | 11:00 a.m. | | | | | | | | | | |
| Corrective work | yes no | | | | | | | | | | |
| School Nurse | no | no | no | no | no | no | no | no | no | no | no |
| Are physical exams given | no | no | no | no | no | no | no | no | no | no | yes |
| Acres of play space | 2.5 | 1.5 | .75 | 1.75 | 1.99 | 1. | .2 | .3 | 1. | 2.5 | 3. |
| *Play equipment | abd | acd | abc | ode | a b | abd | bed | b a | bf | amb | abdh |
| *Attitude toward | h f | b e | gif | f j | d e | klj | e | fk l | h | k l | fglm |
| *Phys. Ed. (Board) | F | F | F | F | F | F | F | P | F | F | P |
| Can grade school have high school gym. | yes | yes | yes | yes | yes | yes | yes | yes | yes | no | yes |
| #Distance from grade school to gym. | SB | SB | SB | SB | SB | SB | SB | SB | 6 | | SB |
| Access to lockers and showers | yes | no | yes | no | yes | yes | no | no | no | no | yes |
| Could they have access to lockers and showers | | no | | no | | | no | no | no | no | |
| Inter-School Contests for Boys in: | | | | | | | | | | | |
| (1) Playground ball | yes | no | yes | yes | | yes | no | yes | yes | no | yes |
| (2) Basketball | yes | yes | yes | yes | | yes | yes | yes | yes | no | yes |
| (3) Track | yes | no | yes | yes | no | yes | yes | yes | yes | yes | yes |
| Inter-School Contests for Girls in: | | | | | | | | | | | |
| (1) Playground ball | no | no | yes | yes | no | yes | no | no | yes | no | yes |
| (2) Basketball | no | no | yes | yes | no | yes | yes | no | yes | no | yes |
| (3) Track | no | no | yes | yes | no | yes | yes | yes | yes | yes | yes |
| Basketball tournaments entered--boys | 1 | 3 | 1 | 0 | | 0 | 2 | 0 | 2 | 0 | 0 |
| Basketball tournaments entered--girls | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 |
| Has school ever entered a play day | no | no | yes | no | no | no | yes | yes | no | no | yes |
| Does school serve lunch | yes | no | no | no | no | no | no | no | no | no | yes |
| (1) Cost | 5¢ | | | | | | | | | | (Dist.) |
| (2) Hot or cold | hot | | | | | | | | | | cold (milk) |
| (3) Time of day | noon | | | | | | | | | | 10:30 & 2:30 |

*a-swings, b-tester-totter, c-giant stride, d-merry-go-round, e-slippery-slide, f-playground ball and bat, g-soccer-football, h-basketball court, i-touch football, j-track and field equipment, k-tennis courts, l-volley ball, n-bar and trapeze.

*In favor of physical education- F
Passive- P
Against physical education- A

#Same building- S.B.
Number of blocks between buildings- 1, 2, 3, etc.

gives physical examination. All schools except Palmer play basketball. All schools except Clifton participate in track.

The attitude toward physical education of the boards of education in these various schools stands: nine, definitely in favor of more physical education; two, passive; none, opposed.

You will note from the data collected by the questionnaire that there is but one man in the county who has had any college work in physical education, yet ten of the eleven schools have track and basketball teams. We know one school that had three basketball games in one week for their grade boys, and the same boys participated in all three games--the games were held on Tuesday, Friday, and Saturday nights.

Table 2 is a reproduction of a basketball tournament bracket for grade schools held at Linn last spring (1937). From an observation of the bracket it can be seen that the four teams reaching the semifinals played three games in two days and that the last two of those games were only one hour apart.

Another grade-school tournament for boys was held at Mahaska, Saturday, March 20, 1937 for eight teams. This

tournament was played off in one day. Games started at 9 A. M. Consolation games were also played. The four strongest teams of those gaining the semifinals were required to play three games each in that one day.

Most well-known physical educators are opposed to competitive athletics of any form in the elementary school. They insist that one complete game of basketball is too strenuous for the good of the child, yet here are two examples of grade school boys playing two and three games in one day and some of them only one hour apart.

The questionnaire shows that four schools have entered a play-day. This play-day must have been some time ago, as the author has not heard of one's being held in the county during the last four years.

Figure 1 shows the percentage of schools that have inter-school athletics in the different major sports of the county. Notice the high percentage in both track and basketball for both boys and girls alike.

Figure 2 gives a comparison of the number of square feet of play space per pupil available for the children of the different schools of the county. Note the inadequate space per pupil at Linn, about the area of the floor in a room; while Palmer, the smallest graded school in the county has the largest play space per pupil.

Table 2. Reproduction of Basketball Tournament Bracket.

Boys' Grade School

BASKETBALL TOURNAMENT

Linn High School Gymnasium

Friday and Saturday, Feb. 12--13

Eight Teams Entered--Four Games Each Evening

 SCHEDULE

LINN

Friday, 6 P. M.

MORROWVILLE

Saturday, 6 P. M.

WASHINGTON

Friday, 7 P. M.

MAHASKA
 Third Place
 Saturday, 8 P. M. Saturday, 9 P. M.
CLIFTON

Friday, 8 P. M.

BARNES

Saturday, 7 P. M.

GREENLEAF

Friday, 9 P. M.

MORGANVILLE
 Official--W. Nelson
 Trophies given for first and second place

Single Admission--10c and 20c; Season Tickets--20c and 30c

 SPONSORED BY THE LINN BOOSTER CLUB

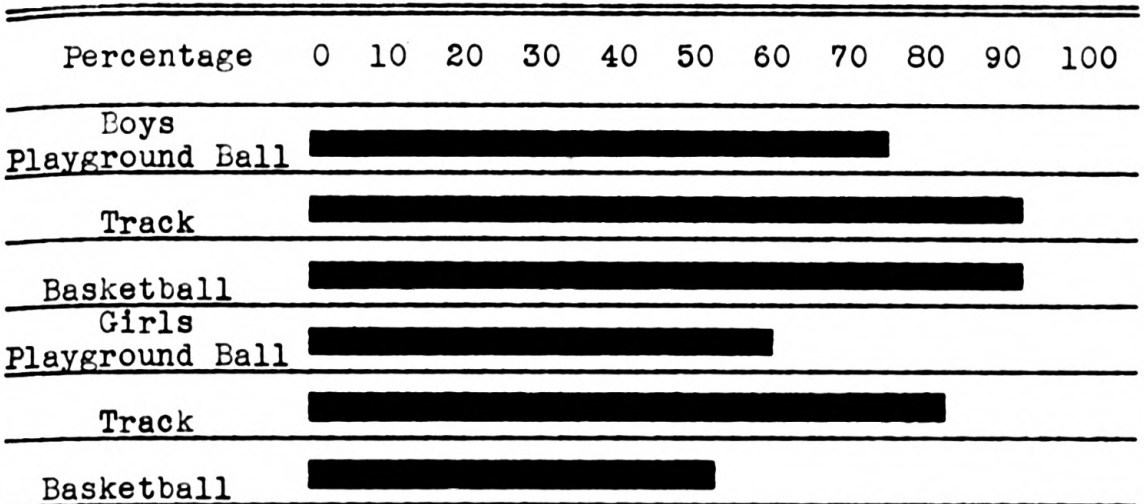


Figure 1. Percentage of schools having inter-school athletics.

According to Mitchell and Mason (10) all schools of less than one hundred students should have ten thousand square feet of outdoor play space. For every one hundred additional pupils 4,000 square feet of play space should be provided. This requirement is met by all schools of the county, except Linn.

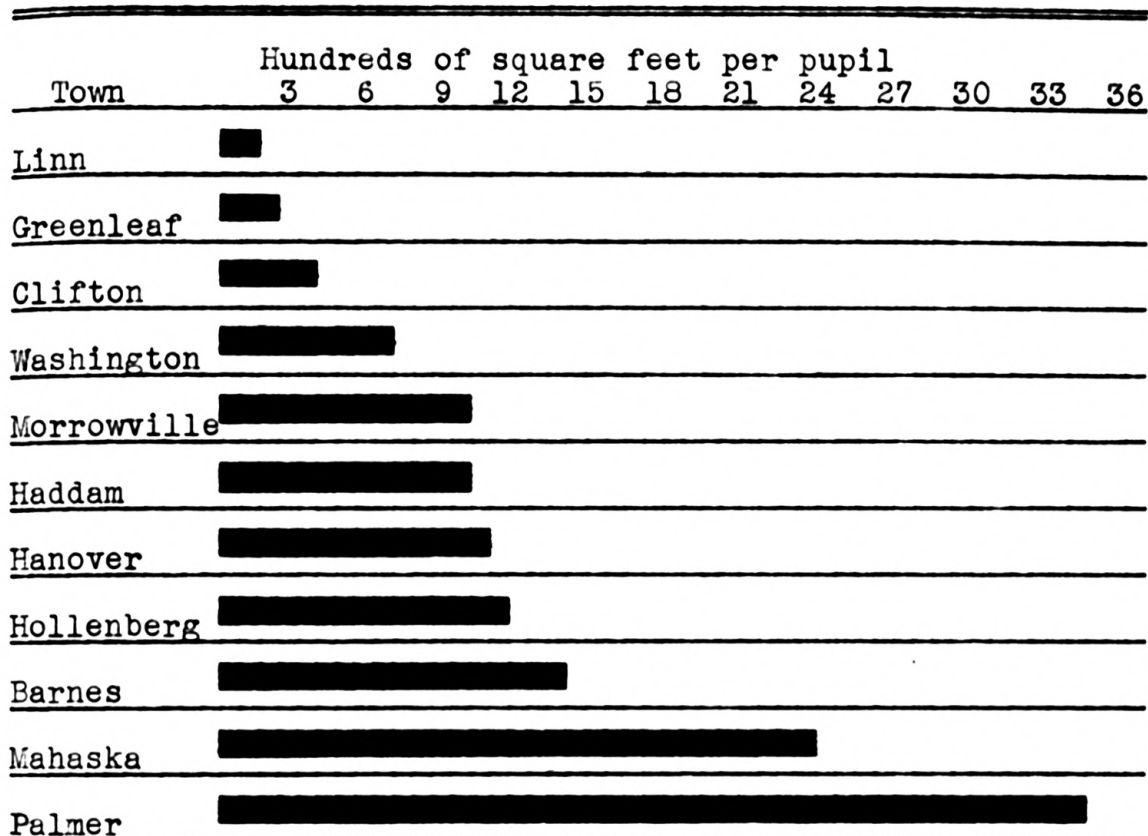


Figure 2. Comparison of the number of square feet of play space available for children of the different schools of the county.

A PROPOSED PROGRAM OF PHYSICAL EDUCATION
FOR WASHINGTON COUNTY

In view of the fact that nine of the eleven graded schools of the county are in close contact with their high school, the high-school athletic coach would be the grade-school physical-education director. His high-school teaching load would be lessened accordingly.

In Greenleaf, Clifton, Washington, Hanover, and Hollenberg this would work out very successfully; as in each case the same board governs both grade school and high school. In the other towns a cooperative system would be set up whereby the grade school would pay its part of the salary of the physical director. He would be responsible to both the grade-school board and the high-school board.

For Washington and Clifton, the two largest schools in the county, coaching, physical education in the high school, and physical education in the grade school would be a full-time physical-education job. A college degree with a major in physical education would be required of these physical-education directors. The job would be a twelve-months job. During the vacation period the physical educator would act as the city or community playground

or recreational director. He would also teach health and sanitation through correlation.

During the school year he would have several squad leaders, about three for each class. These squad leaders would hold their position for a six-weeks period and then give way to some other classmate. In this manner all students would have a chance to develop leadership.

In these two schools a system of seasonable intramurals would be worked out, such that all students physically fit would participate. The group-spirit is to be encouraged. A systematic schedule of events would be worked out within the school itself, such as those set forth later in this work under physical activities for Washington County. There would be no inter-school contests such as trackmeets or basketball games. There would be at least one class of corrective work, more if necessary, to handle the needy. This class would meet in a special room with the equipment needed for individual corrective work.

The amount of equipment would vary as to the size and needs of the school. The following is offered as a minimum list: height and weight scales, stall bars, benches, wall parallel bars, pedograph, full length triple mirror, four individual mats, and a beveled balance beam.

In this class the exercises would necessarily be individual and require personal supervision on the part of the director. Students of this class would include all pupils in school not taking regular physical education. Cases are classified as follows:

1. Lordosis--curvature of the spine, forward,
2. Kyphosis--angular curvature of the spine,
3. Scoliosis--lateral curvature of the spine, either
simple or compound,
4. Stoop shoulders,
5. Flat back,
6. Weak feet--these include, flat feet, hollow feet,
and club feet.

These are some of the more important physical weaknesses or defects that could be improved and possibly completely corrected. A list of exercises for each of the above deformities must be omitted here but can be found in Bancroft (3), if needed.

The period for physical education in these two schools would be sixty minutes in length, occurring in the morning and twice a week for all students. Boys' classes would be held on Monday and Wednesday, classes for girls on Tuesday and Thursday; smaller boys from 9 to 10 A. M., intermediate boys from 10 to 11 A. M., and upper grade

boys from 11 to 12 A. M. with corrective work class or classes if necessary, on Friday from 9 to 10:30 A. M. Girls would be handled similarly except that they would have classes on Tuesday and Thursday, and corrective classes Friday from 10:30 to 12:00. All physical education would be outside when the weather would permit. Formal gymnastics and calisthenics would not be used to any extent. But there would be substituted tumbling, games of low organization, and rythmical activities for the smaller pupils, and games of skill for the larger boys and girls.

The next group of schools, Barnes, Greenleaf, Haddam, Hanover, Hollenberg, Linn, and Mahaska belong in the middle class. These schools do not have an enrollment large enough to warrant a full time physical director yet do have access to a gymnasium.

For this size school is suggested a part time physical director. Again the high school coach would be the man for the job, but in addition he would still be required to teach some high-school classes. He would devote only one or two periods a day to grade-school physical education, and this through the classroom teacher. The physical director would meet his teachers at least once a week for thirty minutes--preferably from 8:30 to 9 A. M. He would

be busy after school with high-school athletics. During this time he would go over the week's program with his teachers. It might be wise to divide the teachers into two groups. The teacher or teachers of the four lower grades would meet him on Monday and the teachers of the upper four grades on Tuesday.

In this weekly meeting between director and teacher, exercises would be demonstrated, teaching processes outlined and discussed, new games explained, and rules explained.

The teacher would have charge of all physical activity. By this plan the teachers are similar to the squad leaders in the larger schools except that they would have more power and authority. The importance of the morning meetings with the teachers cannot be overemphasized. Meetings must be made interesting and alive, the physical director must interest his teachers in the need of physical education and the proper way to administer it.

In referring back to our ideal program of physical education, the periods of relaxation are suggested but are not required. There would be required, however, the period of instruction. The activity of this period would be conducted by the classroom teacher. Here would be

carried out the plans as set forth by the physical-education director in his morning meetings. The period of supervised play would begin at 2:20 P. M. and last until 2:40, that is to say ten minutes before the regular recess time and ten minutes of that time. During that time the teacher would play with the pupils, actually participating in the games.

The organized recess is a play period that is planned and directed. The play space is zoned and a definite zone is allotted to each group of students and their teacher. These zones are marked for the particular activity that is to be played on them. The student groups pass from one zone to the next in a regular order. This gives all the students equal use of the apparatus. The recess activities have been discussed during the physical-education instruction period, therefore, there is no waste of time, in organization, at the beginning of the play period. This period will come at different times for different grades in a large school. This policy relieves congestion on the play field and allows all students to participate.

At 2:40 there will be a free play period for at least five minutes to allow individuality, development in leadership, and freedom. This period is to be unsupervised.

In the remaining two schools in the county without a gymnasium--Morrowville and Palmer--it is suggested that the principals be required to have at least four hours of college credit in physical education. They should devote more time to outside sports and games. Due to the geographic location Palmer can use the winter sports of skating and coasting to a good advantage. Fox and geese (2), run-turkey-run (11), and Indian (11), all snow games, are ideal to use when the weather is suitable for outside winter play. These games could be used at Morrowville as well as Palmer.

The principal would be responsible for the instruction and supervision of physical education of the entire school. He can require his teacher or teachers to help, but he himself should be responsible. He should teach new games, skills, and activities--he should divide the school into at least two groups according to Table 3, the classification chart in the appendix, and let them compete among themselves. His assistant teachers could handle the lower group. He should spend the same amount of time in supervised play as that for the preceding group.

On stormy days when it is impossible to play out of doors, windows or doors should be opened for a short time

at the beginning of the period to allow ample ventilation and games used that will best fit into the space available. Desks should be mounted on long cleats so that they can be moved to the side of the room to give maximum space during this indoor play period.

In the fall and spring, group games, such as wood tag (11), run-sheep-run (11), rhythmical activities, and all types of ball games may be used. Long ball (11) or one old cat (11) are good for the larger boys; dodge ball (11) and volleyball, with a light ball and low net for the smaller children, are excellent. Never allow a game to die. If interest is beginning to lag, change to something else. Plan the play period ahead just as the other lessons of the day are planned.

It is suggested that there would be two zone play-days in the fall and one all-county play-day in the spring. Early in November there would be a play-day for the southern half of the county; this would include Barnes, Greenleaf, Palmer, Clifton, and Linn. For the northern half it would include Haddam, Morrowville, Washington, Hanover, Hollenberg, and Mahaska. These two play-days would be given on the same date, preferably at Clifton and Washington, although they could change from year to year.

There would be an all-county play-day in the spring at Washington, the county seat. The main purpose of play-days is to afford mass participation in athletic games, stunts, rhythmical activities, and other known activities, and not to determine school or individual championships.

PHYSICAL ACTIVITIES FOR WASHINGTON COUNTY

Following is an outline of seasonable games, contests, and activities that is suggested for use. The purpose of this outline is to unify the physical-education activities over the county, and to build up a common knowledge of games and activities that are to be used in the all county play-days. Table 3 gives a fair way of grouping boys or girls. It takes into consideration their height, weight, and age.

Grades 1-2-3-4

Grades 5-6-7-8

Fall Activities

Games

Last man* (2)
 Circle stride ball (15)
 Halloween (11)
 Three deep (7)

Games

Line soccer (11)
 Kick ball (11)
 Playground ball (11)
 Field dodge ball (6)

* Number in parenthesis corresponds to literature cited.

Goal tag (11)

Mimetics and Story Plays

Cowboys (11)
Pilgrims (11)
Follow the leader (11)
Seesaw (11)
Pumping up tire (11)

Relays

Thanksgiving relay (15)
Aisle pass relay (11)
Around the row relay (11)
Hopping relay

Rhythmical Activities

Mulberry bush (7)
London bridge (7)
Yankee doodle (11)
Broom dance (11)

Stunts and Contests

Backward roll (11)
Centipede (11)

Prisoners base (11)

Mimetic Exercises

Standing broad jump (11)
Locomotive (11)
Jump and clap (11)
Jumping jack (11)
Kicking football (11)

Relays

Pass and squat relay (11)
Shuttle relay (11)
Skip rope relay (11)
Chariot race (11)

Rhythmical Activities

Captain jinks (11)
Reap the flax (11)
Military schottische (11)
Old dan tucker (11)

Stunts and Contests

Indian rattle (11, 2, 7)
Elephant walk (11)
Flapper (11)
Spinning wheel (11)

Individual Athletic Events

Potato race (11)
Boys 60 yard run (11)
Soccer punt (for distance) (11)
Horse shoe pitch (11)

Winter Activities

Games

Santa Claus (13)
Shoveling snow (15)

Games

Coasting
Ice skating

Ice skating
 Bean bag board (2)
 Valentine target (15)
 Fox and geese (2) (11)

Mimetics and Story Plays

Shoveling snow (11)
 Santa Claus visit (11)
 Skating (11)
 Jack in the box (11)

Relays

Bean bag passing relay (11)
 Cross over relay (11)
 Walking relay (11)

Rhythmical Activities

Indian war dance (11)
 Pop corn magic (11)
 Shoemaker's dance (11)
 Indian hunters (11)

Stunts and Contests

Cart wheel (11)
 Frog hop (11)

Basketball (boys) (11)
 Basketball (girls 9 court)(11)
 Volley ball (11)
 Fox and geese (11) (2)

Mimetic Exercises

Thread the needle (11)
 Steamboat (11)
 Revolving light (11)
 Basketball passing (11)

Relays

Blackboard relay (11)
 Indian club relay (11)
 Skin the snake relay (11)
 Wheelbarrow relay (11)

Rhythmical Activities

Pop goes the weasel (11)
 Lottie is dead (11)
 Uncle Sam's frolic (11)
 Rheinlander (11)

Stunts and Contests

Wooden men (11)
 Sack of wheat (11)
 Shoulder stand (11)
 Blindfold boxing match (11)

Individual Athletic Events

Eskimo race (11)
 Standing broad jump (11)
 Basketball, one hand shot (11)
 Volley ball serve (11)

Spring Activities

Games

Fox and squirrel (2)

Games

Playground ball (11)

Wood tag (2)
 Last couple out (11)
 Circle dodge ball (2)

Mimetics and Story Play

Fairyboat (11)
 The wind (11)
 Bicycling (11)
 Picking cherries (11)

Rhythmical Activities

Ten little Indians (11)
 The king of France (2, 7)
 Washing the clothes (11)
 Minuet I (11)

Relays

Automobile relay race (11)
 Tag and wall relay (11)
 Circle relay (11)

Stunts and Contests

Crab walk (11)
 Minuet bow (11)

Long ball (11)
 Tennis (11)

Mimetic Exercises

Signalling (11)
 Baseball batting (11)
 Baseball pitching (11)
 Putting the shot (11)

Rhythmical Activities

Nuts in May (2, 7)
 Sicilian circle (11)
 Rye waltz (11)
 May pole dance (11)

Relays

Stride ball relay (11,7)
 Cap transfer relay (11)
 Hoop rolling relay (11)
 Human hurdle relay (11)

Stunts and Contests

Seat crawl (11)
 Heel and toe spring (11)
 Wiggle walk (11)
 Hand stand dip (11, 2, 7)

Individual Athletic Events

Running broad jump (11)
 Skipping race (11)
 Hop, step, and jump (11)
 Tennis serve for accuracy (11)

This list is to be supplemented by many other games and activities that may be desired. The county and zone play-day games are to be taken from this outline.

A PLAY-DAY PROGRAM

Morning

Grades 1-2-3-4

Circle stride ball (15)
 Three deep (7)
 Hopping relay (11)
 Jack in the box (11)

Grades 5-6-7-8

Line soccer (11)
 Kick ball (11)
 Wheelbarrow relay (11, 7)
 Pass and squat relay (11)

Noon-----Basket dinner

Afternoon

One stunt by each school participating in the play-day is to be given. Suggested stunts are:

| | |
|-----------------------------|--------------------------|
| Backward roll (11) | Spinning wheel (11) |
| Blindfold boxing match (11) | Duck fight (11) |
| Heel and toe spring (11) | Shoulder dive (11) |
| Elephant walk (11) | Indian rattle (11, 2, 7) |
| Right hand stand (11) | Wheelbarrow (11) |

Afternoon Games

Grades 1-2-3-4

Cowboys (10)
 Fox and squirrel (2)
 Mulberry bush (11)
 Goal tag (10)

Grades 5-6-7-8

Human hurdle relay (11)
 Running broad jump (11)
 Volley ball serve (11)
 Field dodge ball (6)
 Prisoners base (11)
 Playground ball (11)

CONCLUSIONS

From the facts obtained from this study it is quite evident that:

1. Kansas has no state physical-education program.
2. The principals of the graded schools of Washington County, Kansas, are not properly trained in physical education.
3. Far too many inter-school athletic contests are held.
4. Washington County has no unified and organized physical-education program.
5. All the schools have inadequate play equipment and facilities.
6. A large number of the physically defective children are curable by proper physical training.
7. All pupils in Washington County should be given an annual physical examination.
8. There is no corrective physical education carried on in the graded schools of the county.
9. There is a lack of organized play other than the major sports.

10. Parental sentiment is opposed to inter-school games, contests, and track meets.

11. The school boards are in favor of more physical education within the schools.

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REFERENCES CITED

- (1) Anderson, Lenora and McKinley, Florence.
An outline of physical education. New York.
A. S. Barnes and Company, 137 p. 1930.
- (2) Bancroft, Jessie.
Games for the playground, school, and gymnasium.
New York. Macmillian Company, 456 p. 1931.
- (3) Bancroft, Jesse.
The posture of school children. New York.
Macmillan Company, 327 p. 1925.
- (4) Body mechanics: education and practice. White House
Conference on Child Health and Protection. New
York. The Century Company, 166 p. 1932.
- (5) Broome, Edwin C.
Administration of the health, physical education,
and recreation program. Journal of Health and
Physical Education. 1 (4):20. April, 1930.
- (6) Courses of study for elementary schools, physical ed-
ucation. Missouri Department of Education.
Jefferson City. Botz Printing and Stationary
Company, 222 p. 1931.
- (7) Forbush, W. B. and Allen, H. R.
The book of games for home, school, and play-
ground. Philadelphia. John C. Winston Company,
270 p. 1927.
- (8) Jordon, Nellie W. and Thomas, Paul A.
Course of study in health, and physical educa-
tion. Augusta, Maine. Press of Charles E. Nash
and Son, 153 p. 1928.
- (9) Maroney, Fredrick William.
Physical education for public schools. Chicago.
Lyons and Carnahan, 397 p. 1928.
- (10) Mitchell, Elmer D. and Mason, Barnard S.
The theory of play. New York. A. S. Barnes

and Company, 547 p. 1934.

- (11) Neilson, N. P. and Van Hagen, Winifred.
Physical education for elementary schools. New York. A. S. Barnes and Company, 365 p. 1931.
- (12) Nixon, E. W. and Cozens, F. W.
An introduction to physical education. Philadelphia. W. B. Saunders Company, 262 p. 1934.
- (13) Ocher, W. A.
Physical education for primary schools. New York. A. S. Barnes and Company, 196 p. 1926.
- (14) Pollock, Meyer M.
The road to healthy feet. Journal of Health and Physical Education. 1 (4):23-27, 52. April, 1930.
- (15) State course of study for elementary grades. One through six, physical and health education. Delaware State Board of Education. Dover. State Printer, 245 p. 1932.
- (16) The National Committee on Physical Education.
Physical education today. Journal of Health and Physical Education. 4 (3):4. March, 1933.
- (17) Williams, Jesse F.
The principles of physical education. Philadelphia. W. B. Saunders Company, 481 p. 1927.
- (18) Wood, Thomas Denison and Cassiday, Rosalind.
The new physical education. New York. Macmillain Company, 457 p. 1927.

APPENDIX I

Table 3. Classification chart. (boys or girls)

| Exponent | Height | Age | Weight | Exponent | Sum of Exponents |
|----------|--------|-------|--------|----------|------------------|
| | 50 | 10 | 60 | | |
| 1 | 51 | 105 | 65 | 1 | |
| | 52 | 106 | 66 | | |
| 2 | 53 | 10-11 | 70 | 2 | 9 and below--A |
| | | 11- | 71 | | |
| 3 | | 11-5 | 75 | 3 | |
| | 54 | 11-6 | 76 | | |
| 4 | 55 | 11-11 | 80 | 4 | 10-14 class B |
| | | 12- | 81 | | |
| 5 | | 12-5 | 85 | 5 | |
| | 56 | 12-6 | 86 | | |
| 6 | 57 | 12-11 | 90 | 6 | 15-19 class C |
| | | 13- | 91 | | |
| 7 | | 13-5 | 95 | 7 | |
| | 58 | 13-6 | 96 | | |
| 8 | 59 | 13-11 | 100 | 8 | 20-24 class D |
| | | 14- | 101 | | |
| 9 | | 14-5 | 105 | 9 | |
| | 60 | 14-6 | 106 | | |
| 10 | 61 | | 110 | 10 | 25-29 class E |
| | | 15- | 111 | | |
| 11 | | 15-5 | 115 | 11 | |
| | 62 | 15-5 | 116 | | |
| 12 | 63 | 15-11 | 120 | 12 | 30-34 class F |

The following is an example of how the above chart is to be used. A boy weighs 89 pounds, is 13 years, four months old and is 53 inches tall. 89 equals exponent 6, 13 years, four months equals exponent 7, 53 inches equals exponent 2; 6 plus 2 equals 15, the sum of the exponents, therefore, the boy belongs in class C.

QUESTIONNAIRE TO GRADED SCHOOLS OF WASHINGTON COUNTY

1. How many students are enrolled in your grade school? _____
2. How many teachers handle this group? _____
3. List of teachers--grades taught--number of pupils in each room,

| Teacher | Grade | Number of pupils |
|---------|-------|------------------|
|---------|-------|------------------|

1.

2.

3.

4.

5.

6.

7.

8.

4. Do you have any form of required physical education?
(Yes--No)
(If answer is yes, fill in the following)

- a. Does teacher or director in charge have any college credits in physical education? (Yes--No)

- b. How many hours of credit has he? _____

- c. In what college or university were they taken?

- d. What time daily is spent in physical education?

(1) Number of periods a week? _____

e. What time of the day does this period come?

f. Do you have individual corrective work? (Yes--No)

5. Do you have a school nurse? _____

6. Are all students given physical examinations periodically? _____

7. How many acres of playground space is accessible for grade school play? _____

8. What equipment for the playground have you? Please list

| | |
|-------|-------|
| _____ | _____ |
| _____ | _____ |
| _____ | _____ |
| _____ | _____ |

9. What is the attitude of your board or community toward physical education? (in favor or against it)

10. Does the grade school have access to the high school gymnasium during bad weather? _____

Could it have? _____

(If answer is yes, fill in the following)

a. How far is the gymnasium from the grade school building? _____

b. Do they have access to lockers and showers?
(Yes--No)

c. Could it be arranged so they could have? (Yes--No)

11. Does your school have inter-school contests for boys in:

Playground ball _____

Basketball _____

Track _____

12. Does your school have inter-school contests for girls

in: Playground ball _____

Basketball _____

Track _____

13. How many grade school basketball tournaments did your boys enter this season? (1936-1937) _____

14. How many grade school basketball tournaments did your girls enter this season?(1936-1937) _____

15. Have you ever entered or sponsored a play day?

16. Do you serve any form of lunch to the lower grade pupils? _____

(If answer is yes, answer the following)

a. How is it financed? _____

b. What is usually served? _____

c. When is it served? _____