# PHYSICAL EDUCATION FACILITIES IN CLASS A AND B

# PHYSICAL EDUCATION FACILITIES IN CLASS A AND B

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#### FOREWORD

"You know the model of your car, You know just what its powers are, you treat it with a deal of care, Nor tax it more than it will bear, But as for self -- that's different. Your mechanism may be bent, Your carburetor gone to grass Your engine just a rusty mass. Your wheels may wobble and your cogs Be handed over to the dogs. And you skip and skid and slide Without a thought of things inside. What fools, indeed, we mortals are To lavish care upon a car. With ne'er a bit of time to see About our own machinery."

-- John Kendrick Bangs

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J.M.O.

Stillwater, Oklahoma July 10, 1939

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### CHAPTER I

#### INTRODUCTION

We seem to have passed through three stages in our national life. The first is that of the pioneer whom we glorified. He opened the West and built towns and cities; he smoothed the path of commerce and industry from coast to coast. The second stage marks the captain of industry, whose industrial enterprises have yielded tremendous wealth and power, focusing the attention of people with privilege, patronage, and pecuniary values. The third stage seems now with us. in which more and more people are asking, "Of what value wealth, national power, and great enterprises, unless there is more health, more joy and happiness, finer and better living everywhere?" The glamour of the pioneer is nearly gone, the captain of industry seems less commanding in a world that is asking that wealth shall be translated into health, power into human happiness and understanding. If these values express the mood of our modern world. then physical education must be viewed as a way of living.

Man was fashioned for out of door living, not for a sedentary existence in dirt filled air, and his youth is given him for the development of his latent powers, of which the physical are the fundamental.

When children attended school for three or four months of the year it was possible for them to secure in the eight months out of school the minimum essentials of activity for

Williams, Jesse Feiring and Brownell, Clifford Lee, The Administration of Health and Physical Education, p. 25

developmental purposes. In addition, the life of the home provided for play in the improvised circus of the orchard gang, the field events that arose out of the chores and duties in the barn-yard and wood-shed. Children used the facilities for dramatization of the play interests.<sup>2</sup>

Now, the child is in school for eight or nine months out of the year, and in some cases ten months of the twelve. The school has undertaken a comprehensive education of the young of the human species, and is seriously setting up curricula looking for the education of the child in not only the elementary processes, but in many additional activities.

This lengthened school term and the enriched curriculum have exerted profound influence upon the construction of school buildings. The one-room school is gradually disappearing before the competency of the consolidated school, and the village schools, designed to house four classes, are giving way to an establishment that will take care of all the children in the neighborhood, and will provide them all with an enriched curriculum.

The description Williams gives of early life is an accurate picture of early Oklahoma when the child was afforded ample physical exercise in every day living. Generally speaking, Oklahoma is a "rural" state and the youth of earlier days was expected to contribute his share toward the upkeep of the family. This necessitated many outdoor chores for

Williams, Jesse F. Principles of Physical Education. p. 335

both boys and girls and, necessarily, a better opportunity for healthier, stronger bodies. Too, the great majority of children walked to and from school--sometimes as much as two and three miles each way. Today, outdoor chores for many children no longer exist. We have more boys and girls attending school than ever before. School busses now go to doors of many homes and are required to go at least within a mile of many others, taking the children to school and home again in the afternoon. (Again, the activity of the pioneer child is eliminated for the modern child. Our school program lends itself to the development of the mind, but as yet, few Oklahoma schools offer a physical education program that will educate and develop the whole child.) The entire state has great possibilities in outdoor facilities if action is taken to secure larger sites. Williams suggests that each high school have at least ten to twelve acres in the school site. Some states require that all plans for new buildings and school sites be submitted to the State Board of Control for approval before buildings are erected. This eliminates such crowded playgrounds as many schools have. Many schools have sites of less than one acre.

Probably no other educational department is so handicapped because of lack of adequate space and equipment, as is physical education. In a majority of schools a restricted and educationally indefensible program is the only possible one because of inadequate facilities. It would seem that

<sup>3</sup> Ibid., p. 342

many administrators hold the opinion that flexion and extension of a few muscle groups in a restricted area represents adequate physical education. Similar cramped conditions in other classrooms would not be tolerated. This is the opinion of Grover W. Mueller, Director of Physical Education, Philadelphia Public Schools.

Dr. William L. Hughes tells us that Horace Greeley's familiar statement, "Go West, young man, and grow up with the country," might well be paraphresed for physical education to read, "Go service program, young man, and grow in fame and usefulness in the profession." For the required physical education program is probably the least developed, yet one of the richest in opportunities for service to students in all education.

No department in the educational field is as close to the public as the department of physical education, and consequently its public relations are of great importance. There are many points at which this department touches the community, namely: press, health agencies, safety committees, youth organizations, athletic groups, and emergency educational groups.

During recent years there has been a tendency to add more and better physical education facilities to high schools

<sup>&</sup>lt;sup>4</sup>Mueller, Crover W., "The Problems of Physical Education in Secondary Schools." The Journal of Health and Physical Education, October 1938, p. 485

<sup>5</sup> Hughes, William L., "Enriching the Required Service Program,". The Journal of Health and Physical Education, April 1939, p. 205

throughout the nation. However, Oklahoma, a comparatively new state, has as yet failed to put physical education on an equal basis with other required subject matter. An increasing number of educators are realizing, and stressing the fact, that physical education should have its place in the school curriculum and are working toward that end.

It is generally acknowledged that physical education is important. Dr. Jesse Williams, in his "Principles of Physical Education," tells us that physical education should aim to provide skilled leadership and adequate facilities that will afford an opportunity for the individual or group to act in situations that are physically wholesome, mentally stimulating and satisfying, and socially sound.

With these facts in mind, this study has been made to find the extent of physical education facilities in the A and B class high schools of our state, and to ascertain whether or not the facilities are adequate to carry on a well rounded physical education program. By means of standards set up by eminent authors, an evaluation has been made of the facilities used by the reporting schools.

It is a fact that instructors with different professional training would require different physical education facilities, as would all the sports require different facilities. Too, each section of the country presents different needs in the field of physical education. However, this broad field has not been covered in this study. Consideration has

Williams, Jesse Feiring, Loc. Cit., p. 287

been given to play areas, their type of surface, gymmasium facilities, swimming pools, and community use of all these facilities.

It is the urgent desire of the writer that this study may prove helpful to educators in determining the present physical education facility needs of schools in Oklahoma and in helping to fulfill those needs.

## CHAPTER II

### NEED FOR THE STUDY

It is believed the results of this study will be of value in knowing exactly the physical education facilities we have in the way of gymmasiums, shower rooms, examination rooms, dressing rooms, directors' office, play areas, swimming pools, size and surface of school sites, and other information vital to educators who are interested in physical education becoming a part of the curriculum of Oklahoma schools. Too, it will be of value in carrying out more effectively the functions and responsibilities of the State Department of Education.

Oklahoma, as an entire state, has not been able to estimate her physical education facilities. So far as the writer is able to find, no such study of physical education in Oklahoma has been made in this field. Various schools, interested in introducing physical education into their systems, have investigated to find what facilities are necessary to carry on a program. These investigations have been of value to the individual schools.

physical education program it will have to be introduced as a required subject in the curriculum of all the schools in the state. Approximately seventy-five per cent of the states in our Union require physical education and Oklahoma is rapidly approaching the time when the legislature will be expected to make appropriations and pass laws requiring physical education in all of our public schools. We have

only to read our current health and physical education journals, books, magazines, newspapers and to note new school plants to know that educators are giving greater attention to facilities for the growth and development of the child's body as well as the mind.

No other single subject in the secondary curriculum has been introduced so recently, has been subject to so much mandatory legislation, has cost so much for facilities and equipment in proportion to the per pupil use, or has such variety of facilities considered essential for its proper development as has physical education.

If this be true, it is even more important to know what facilities are being used in the state and exactly what is needed, in order to eliminate the expense of unnecessary equipment.

The State Department of Public Instruction in this state, as in many others, is a guide in curriculum making and has control of the accrediting of schools. This study should be of some benefit to this department in that it will make it possible for it to set up standards upon which it may accredit schools in their physical education programs as well as other academic work. One reason that has made it necessary to postpone setting up any definite standards in regard to physical education is because of lack of information concerning the facilities necessary for carrying out a program of physical education in the high schools of this state.

Today, the public is thinking about and even asking

Blair, Herbert, Physical Education Facilities for the Modern Junior and Senior High School, p. 3

about the true worth of the physical education program. Physical education instructors and professional men everywhere are interested in having actual facts concerning the status of physical education and in knowing some way in which they can enlighten and teach the public that in physical education we have a field of learning that will affect the health and happiness of mankind in the future. For this reason data concerning physical education is needed by our educators. However, it is not only our physical educators who need the information concerning our physical education departments, but it is the administrative officials, also, who need to know the status of our equipment, and with this information physical educators will be able to show exactly where our good and weak points are in physical education departments.

One of the problems of our activity program is the fact that, generally speaking, most schools have an athletic program for the few well developed students, instead of the entire student body.

It is desired that all students have an opportunity to take advantage of the athletic programs. Participation should be looked upon as a valuable educational experience.

Over-emphasis of athletics is a point on which our schools are criticized by many. If we change our program to a curriculum with physical education included, we will have a program that will include some physical education for all

<sup>2</sup> Jenne, Eldon I., "Athletics up to Date," Journal of Health and Physical Education, March, 1939, Vol. X. p. 148

students.

It is hoped that this study will be of benefit to the Division of Transportation and School House Planning of the State Department of Public Instruction. This Division has charge of preparing plans for school houses and of approving such plans. The Division has not, up to this time, insisted upon the inclusion of any facilities for physical education in plans for schoolhouses in the state.

The writer sincerely hopes this study will be worthwhile enough to add something to the small but growing body of literature on this very interesting subject.

## CHAPTER III

## TECHNIQUE OF STUDY

The questionnaire method of study was used in this thesis.

It was impossible and impractical to get the information from the large number of schools by any other method.

The questionnaire was prepared after a thorough examination of various score cards, pamphlets, current magazines, i.e. The Athletic Journal, American School Board Journal, The Journal of Realth and Physical Education and Research Quarterly. Additional information was gained from reading matter found in the libraries of Oklahoma Agricultural and Mechanical College and the University of Texas. The three greatest contributions were made by: "A Study of Physical Education Programs in High Schools of Texas," made by the State Director of Physical and Health Education, High School Division, State Department of Education, Department of Physical Education, the University of Texas; Score Card for Physical Education Facilities in Junior and Senior High Schools, Herbert Blair, in American School and University Year Book,

It school superintendents, principals, coaches and college instructors to find whether or not it was fitted to the conditions of Oklahoma schools and easily understood by the person reporting. The questionnaire was revised six times in an attempt to make one that would give an accurate picture of physical education facilities. In the supplement, space was given to allow the reporting official an opportunity to

give any additional information on facilities vital to this study and not asked for in the questionnaire.

To encourage return of the questionnaire, a self-addressed, stamped envelope was enclosed in each letter and a promise of a copy of the findings was made to those schools desiring it.

Classification of the schools was made according to the Oklahoma High School Athletic Association, and questionnaires were sent to every A and B class high school in the state—three hundred fifty-three in number.

The one hundred seventy-eight questionnaires, which were returned from the A and B class schools, were compiled in large charts which included all questions in the questionnaire. Additional columns were made to show the information given by school officials which had not been specifically asked for in the questionnaire. For accuracy and economy in space, each questionnaire was numbered and tabulated by the same number on the chart. This made any necessity for rechecking more accurate. Tabulations were made across the chart to show the facilities of each school. Each column was totaled and the per cent was found by dividing the total number of schools used into the number of schools which has the facility in question.

From the data on the large charts, tables were made and arranged in the same order as the questions and units in the questionnaire, except that the homogeneous material found in the main questionnaire and supplement was grouped together

in the tables for greater unity.

Percentages, in the tables, were left in whole numbers, or carried to two places past the decimal point. For example, 10.6 per cent would have been recorded as 11 per cent, or 10.4 per cent would have been recorded as 10 per cent. This was done to make the charts more simple, so that the reader might easily understand them.

## CHAPTER IV

## SOURCE OF DATA

In making this study, questionnaires were sent to all the A and B class high schools of the state.

According to the Oklahoma High School Association
Bulletin No. 5, Volume X, February-March 1938 issue and the
Oklahoma Educational Directory, 1938-39, Bulletin No. 108-0,
issued by A. L. Crable, State Superintendent of Public Instruction, there are eight hundred thirty-three high schools in
the state of Oklahoma. Of this number, three hundred thirtythree are A and B class schools. Sixty-four are in A class
and two hundred sixty-nine are B class schools.

an enrollment of three hundred seventy-five, and to be a B class school there must be an enrollment of one hundred to three hundred seventy-five. Those below one hundred in enrollment are C class schools and were not considered in this study. This classification is set up by the Oklahoma High School Athletic Association for participation of schools in various sports. C class schools were not used, due to the fact that the study would be too broad.

Three hundred fifty-three questionnaires were mailed to the A and B class schools of the state. Of this number, one hundred ninety-eight were returned. However, it was found that twenty schools were, or had become, C class schools by a decreased enrollment. Thirty-one A class and one hundred forty-seven B class schools reported, making a total of one hundred seventy-eight schools used in this study.

This was forty-eight percent of the total number of A class schools and fifty-five percent of the total number of B class schools in the state. Fifty-three percent of the A and B class schools, combined, made reports.

#### CHAPTER V

#### TREATMENT OF DATA

Before the physical education facilities in the A and B class high schools of Oklahoma could be scored, or rated, it was necessary to set up standards, or criteria, that would be generally recognized as valid by those who have attained leadership in that field. The rather extensive literature regarding the teaching of physical education, i.e., magazine articles, textbooks on the administration of physical education, and special studies on standards for school buildings, included many references to what should be provided for carrying out an effective program. While there is far from general agreement among these specialists regarding all the facilities that they recommend, there is sufficient agreement to provide a standard which, if followed, would result in an increase of opportunity for a well-rounded physical education program for the state.

For this study, the following criteria were set up:

The demands upon the size of the present-day highschool site are as follows: adequate space for physical education, athletic and recreational quarters.

There is abundant evidence from experience to prove that no high school site should be less than three acres for the most modest building. Of this space, two acres are necessary for physical education. Five acres is the minimum for a school of five hundred pupils. Nothing short of a ten-acre site will suffice for large schools. And even the school of five hundred pupils requires this larger site if it is to include a general athletic field with accommodations for spectators. A twelve to fifteen acre site is always desirable......

To meet standard requirements as to space, the

smallest school should have at least two acres for outdoor physical education. This space should include space for baseball, which space will also serve football; space for two volley ball games; and one playground ball game is recommended. About one hundred students in action can thus be accommodated at one time. If the school is to contain more than six hundred pupils, the outdoor physical training space should accommodate over one hundred pupils at a time, and hence must be enlarged proportionately.

No site of less than ten to twelve acres will suffice for girls' play field, boys' athletic field, tennis courts, basketball courts, volley ball courts, experimental gardens, proper placement of buildings, and give desirable landscape setting. In larger cities, larger areas should be secured so as to make possible an athletic field, separate buildings for gymnastics, baths, dressing rooms, shops, and the like.

This demand for increased space has resulted from the change in the type of program in physical education. Whereas calisthenics and formal gynmastics require about thirty-five to fifty square feet of space per pupil, games and sports and the outdoor grogram generally require a more abundant space allowance.

The most desirable type of surface for outdoors is dirt, and the second to be desired is asphalt.

Different parts of play areas require different kinds of surfacing. Turf is the best surface for the play of small children, for games such as bowling and clock golf, and for major sports such as football and baseball. Other features such as the running track require a special surface, whereas games such as volley ball may be played on almost any type of area.

#### PHYSICAL EDUCATION PACILITIES

The criteria for gymnasium facilities were taken from

<sup>1</sup> Engelhardt, N. L. and Engelhardt, Planning School Building Programs, p. 144

Williams, Jeffe F., Principles of Physical Education, p. 342

Sharman, Jackson R., Physical Education Facilities for High Schools of Alabama, p. 56

Butler, George D., The New Play Areas, Their Design and Equipment, p. 10

Blair's "A Score Card for Measuring Physical Education Facilities," and Dr. Haskell Pruett's "Physical Education Facilities."

## A. Gymnasium

## 1. Gymnasium Rooms:

- a. First level -- Two gymnasia for a total enrollment of not more than 700.
- Second level -- One gymnasium for each 500 pupils enrolled.
- c. Third level -- One gymnasium for each 700 pupils enrolled.
  - d. Fourth level -- One gymnasium in schools enrolling less then 1,000 pupils.
  - e. Fifth level--One gymnasium in schools enrolling 1.000 pupils or more.

## 2. Location of Gymnasium:

Ground floor at, or above grade elevation; separate unit or wing; south exposure. At a point which permits close coordination of work on the athletic field with use of the gymnasium.

# 3. Size and Height:

- a. First level -- 60x90 feet, with height of 22 to 24 feet under all beams and trestles.
- b. Second level -- 50x80 feet, with height of 20 to 22 feet under all beams and trestles.
- c. Third level -- 45x70x18 to 20 feet.
- d. Fourth level -- 40x60x18 feet.
- e. Fifth level--Narrower, shorter or lower than 40x60x18.8

<sup>&</sup>lt;sup>5</sup>Pruett, Haskell, Physical Education Facilities. (Pamphlet)

<sup>&</sup>lt;sup>6</sup>Blair, Herbert, "A Score Card for Measuring Physical Education Facilities," The American School and University, 1937

<sup>7</sup>Pruett, Haskell, Loc. Cit.

<sup>8</sup>Blair, Herbert, Loc. Cit., p. 222

## 4. Light:

- a. First level -- Two long sides of the gymnasium exposed to light and air. Window area over 25 percent of floor area, No skylights.
- b. Second level--20 percent or more of window area, but from one long axis only.
- c. Third level -- 20 percent light, but from side and ends or overhead skylights.
- d. Fourth level -- Under 20 percent window area, but over 10 percent.
- e. Fifth level--Less than 10 percent window area.9

## 5. Walls:

- a. First level -- "Anything you can walk on makes a good wall surface." Glazed brick or oak wainscot with soft brick or sound-absorbing plaster for the upper part of the wall.
- b. Second level -- Glazed brick wall or tile, or smooth face brick walls.
- c. Third level -- Common brick wall throughout, without wainscot.
- d. Fourth level--Cement plaster wainscot with sandfinished plaster above.
- e. Fifth level--Unsurfaced concrete block. Sliding doors.10

#### 6. Floors:

Narrow width tongue and groove, hard maple over diagonally laid hard pine on sleepers, with noise reducing material between the two floors. Provisions made on all doors and walls for wide expansion joints to prevent buckling.

Wood blocks on end for upper floor .... Wood blocks

<sup>9</sup> Tbid., p. 222

<sup>10</sup> Ibid., p. 222

<sup>11</sup> Pruett, Haskell, Loc. Cit.

on end laid directly upon concrete.12

#### 7. Bleachers:

- a. First level--Seating arrangements for half or less of student body on lifting tiers of seats placed on the two long sides of the gymnasium.
- b. Second level -- Same as in (a), but removable bleachers to be placed on the floor when needed.
- c. Third level -- Permanent non-lifting bleachers starting at floor level for half the student body.
- d. Fourth level -- Galleries for spectators with front wall 8 or more feet above floor level.
- e. Fifth level -- Gallery or permanent bleacher area equal to or greater than playing area. 13

## B. Service Facilities

## 1. Dressing Rooms:

Area of 20 square feet dressing and locker space per pupil for largest class, adjoining gymnasium, width not over twice the distance from the window top to the floor; 20% window area; non-slip tile floor; brick or tile walls; readily accessible from athletic field.

#### 2. Shower Room:

Adjacent to locker room, easy of access from gymnasium, swimming pool and athletic field, separate from, but adjoining locker room through a drying room. Fourteen square feet of floor area for each shower head. One shoulder-height shower for each four boys in largest class. Non-slip tile floor and marble or tile walls. 20% window area, copper covered frame and sash.15

<sup>12</sup> Blair, Herbert, Loc, Cit., p. 222

<sup>13</sup>Tbid., p. 222

<sup>14</sup> Pruett, Haskell, Physical Education Facilities.

<sup>15</sup> Ibid.

## 3. Team Room:

- a. First level--Space in main locker room for a sufficient number of large lockers so that the equipment issued to team members is safeguarded.
- b. Second level -- One or two special dressing rooms of about 200 square feet area, located near the entrance and convenient to the showers, for the boys' visiting team or home team or both, equipped with benches and hooks or lockers.
- c. Third level -- Same floor area set apart for the teams as for the rest of the school. Two separate rooms as part of the physical education facilities, equipped with lockers, showers and toilet facilities. One each for boys' home team and boys' visiting team. 16

## 4. Sanitary Features:

- a. First level-Entrance to toilet room from shower as well as locker room. Outside light, tile floors and walls. One toilet for each 15 girls in largest class. One toilet and one urinal for each 25 boys in largest class. One lavatory for each 20 boys or girls.
- b. Second level -- Toilet room connected with locker room or shower room, but not with both. Otherwise as in (a).
- c. Third level--As in (b), but one toilet for each 25 girls and one urinal for each 50 boys. 17

# C. Auxiliary Room

# 1. Physical Director's Office:

A small, well-lighted room, conveniently located for supervision of athletic field, gymnasium and locker room. Equipped with private shower, toilet facilities and closet. 18

<sup>16</sup> Blair, Herbert, Loc. Cit., p. 224

<sup>17</sup>Ibid.

<sup>18</sup> Pruett, Haskell, Physical Education Facilities, (Pamphlet)

## 2. Examination Room:

Size about 12x20 feet in direct connection with the physical director's office and locker room. 20 percent light.

## D. Supplement

A supplement was added to the original questionnaire to get a more accurate picture of play areas and to include swimming pools.

<sup>19</sup> Ibid.

## CHAPTER VI

## FINDINGS

Tables, numbers I to VII, inclusive, contain data that were taken from the questionnaires, tabulated in large charts and then grouped into units. With a few exceptions, the tables are self explanatory.

From the thirty-one reporting A-class schools, only one school returned a questionnaire with no information. Thirty schools reported having 12,109 boys and 12,706 girls enrolled, or a total of 24,815 students in all the A class schools.

Of this number, 12,763, or fifty-one percent, used the gymnasia.

One hundred forty-one B-class schools reported a combined enrollment of 11,657 boys and 12,147 girls, or a total of 23,804 boys and girls. In the B class, 14,359 students, or 60.3 percent, were reported as using the symnasia.

Three A class schools and sixteen B class schools reported the entire student body used the gymnasia.

The following is a list of purposes for which gymnasia were used, other than for athletics, and the number of schools using them:

A Class Schools	Purpose
7 11 12	Auditorium and Music Athletics only Physical Education
B Class Schools	Purpose
77 34 10 18 2	Auditorium Athletics only Physical education Banquets and social events Dances

Three A Class schools had three gymnasia, six had two, and nineteen had one, making a total of forty. Thirteen B. Class schools had two gymnasia and one hundred twenty-five had one, making a total of 151.

In sanitary features, A Class schools reported one hundred eight toilets and sixty-six lavatories for boys; ninety-nine toilets and sixty-four lavatories for girls, or an average of 112.1 boys to each toilet, and 183.4 boys to each lavatory; 128 girls to each toilet and 198.5 girls to each lavatory.

B Class schools had 324 toilets and 165 lavatories for boys; 306 toilets and 165 lavatories for girls, or an average of 35.5 boys to each toilet, and 69 boys to each lavatory; 39.1 girls to each toilet and 72.6 girls to each lavatory. This is based on indoor toilet facilities.

TABLE I PLAY AREAS

Number o	f Schools	30	141*	
Class of	Schools	A	В	
70	100-200	0	.76	
enti	200-300	0	.15	
Students	300-375	0	.09	
of S	375-500	.47	0	
No.	500-1000	.33	0	
R	1000 up	.20	0	
uo .	Elementary	.40	.79	
	Junior High	•57	.37	
Schools Site	High School	100	100	
တိ	Jurior College	.20	.04	
Jo.	0-5 acres	.50	.67	
Size c	5-10 acres	.07	.18	
Siz	10 acres up	.17	.15	
Ing	Grass	.37	.43	
Top	Chat	.16	.09	
Dr	Dirt	.47	.48	
000	0-500	.03	.05	
ting ity cher	500-1000	.10	.03	
See	1000-2500	.16	.06	
g a	2500-5000	.13	.01	
Separate	play areas for girls	.07	•06	
Separate	play areas for boys	•07	•06	
Use of A	thletic field by community	.50	.37	
Ave. No.	months used by community lass school and six B class school	.42	.42	

\*One A class school and six B class schools returned blanks with no information except on play areas.

## TABLE II GYMNASIUM FACILITIES

1/25	Number of Schools	28	138*
	Class of Schools	A	В
	One gymnasium	.61	.90
	Two gymnasia	.29	.10
	Three gymnasia	.10	0
Fupils Using Gym	0-500 for activities	.61	100
Pul	500 up for activities	.39	0
	Ground level	.68	.64
Location of Gym	Above ground level	.26	.28
of (	Below ground level	.06	.08
H	Separate wing from building	.65	.57
	60x90x24 ft.	.49	.32
andght	50x80x22 ft.	.28	.38
Size and Height	40x60x18 ft.	•07	.22
02	Smaller	.16	.08
	Windows on long axis of building	.71	.66
	Light and air along both sides	.52	.56
17)	30% of wall area	.10	.21
Light	25% of wall area	.38	.21
н	20% of wall area	.24	.18
	Less	.18	.29
ULW U	Skylight	.10	•09

<sup>\*</sup>Two A class schools had no gyms and one was under construction. Six B class schools had no gyms and three were under construction. The same explanation applies to Tables III, IV, V, VI, VII, and VIII.

TABLE III
GYMNASIUM FACILITIES (continued)

	Number of schools	28	138
	Class of school	A	E
	Absorbing plaster or soft brick	.54	.45
	Glazed brick or tile	.31	.14
Walls	Common brick	•06	.14
Wa.	Cement	.03	.09
	Rock	.03	•09
	Wood	.03	.09
	Tongue and groove hard maple	.72	.51
	Tongue and groove oak	0	.08
m	Tongue and groove pine	.10	.13
Floors	Top floor over diagonally laid pine	.42	.58
F	Air vents to prevent buckling	•58	.57
	Wood blocks on end for upper floor	.10	.11
	Wood blocks laid on concrete	.08	.17
	Lifting tiers	.23	.26
	Half of student body	.11	.10
	Less than half of student body	.25	.12
PS	More than half of student body	.64	•78
Bleachers	Removable	.23	.17
Ble	Seats on long sides	.77	.98
	Permanent seats at floor level	.48	•52
	Balcony	.10	•01
	Knock down	•03	
	Use of gym for community	.32	.42
	Ave. No. months used by community	.42	.50

TABLE IV

## SERVICE FACILITIES

			Number of schools	28	138
			Class of schools	A	В
			20 sq. ft. locker space per pupil	.32	.27
			Adjoins gym	.93	.74
N O			Adjoins athletic field	.68	.67
КО	8		Non-slip floor	.03	.13
	Boys		20 % window area	.62	.44
2			Brick	.33	.20
7		Walls	Tile	.14	.06
Ω		Wa.	Plaster and concrete	.50	.52
五			Wood	•03	.22
7	Girls		Facilities same as boys	.74	.74
			Facilities not as good	.23	.12
			None	.03	.14
			Large dressing room	.71	.66
H	Boys		Separate dressing room for visiting team	.84	.63
0			Convenient to shower	.77	.73
K K			Benches	.87	.73
A M	187		Lockers	.58	•41
	E U		Hooks	.48	.59
EI EI	8		Same as boys	.54	.58
	Girls		Not as good	.21	.11
			None	.25	.31

TABLE V

SERVICE PACILITIES

-		Number of schools	28	138
-	-	Class of schools	Α_	В
	000	Locker room	•71	.72
	easy ss to	Gym	.87	.76
	Of acce	Swimming pool	.16	.01
	g	Athletic field	•45	.43
		14 sq. ft. of floor space to each shower head	•36	.33
Z S	-	One shower head to every four boys in largest class	.23	.12
Boy		Non-slip floor	.23	.25
		Brick	.10	.04
	138	Tile or marble	.29	.05
	Wal	Concrete or plaster	.55	.72
		Wood	•06	.19
		25% of wall area	•07	•08
	Area	20% of wall area	•36	.25
1		10% of wall area	-20	.42
	ndow	5% of wall area	.18	.25
	W.5	Skylight	•03	0
1	-	Metal window sashes	.15	.10
20	-	Facilities same as boys	•50	•38
Girl		Facilities not as good	.18	.35
		None	•32	.27

TABLE VI

			SERVICE FACILITIES (continued)		
-			Number of schools	28	138
-			Class of schools	A	В
9 3	9		Entrance to toilet from shower	.60	.54
Facilitie	eature		Entrance to toilet from locker room	•65	.44
Fac	H		Windows in toilet	-65	•58
60	cary	,	Tile	.09	0
ervice	ani tary	Floor	Concrete	.88	.71
Ŋ	SZ		Wood	.03	•01
			Small lighted room	.54	.22
	п	Boys	Small room	•06	•05
	Director's Room		Conveniently located	.33	.22
			Well equipped	.14	.03
mc			Fone	-40	.73
Room		Girls	Facilities same as boys	.43	.12
rry			Facilities not as good as boys	-10	-04
Auxiliary		0	None	.47	.84
Aux	mo	62	Good	0	.01
	Коош	1 14	Average	.14	•09
	tion		Rone	.86	.90
	nat	1s	Good	0	.01
	Examination	Girls	Average	-11	.04
	田		None	-89	.95

TABLE VII SWIMMING POOL at Number of schools 28 138 Depth shallow 3 Class of schools A B end end Number of school pools .14 0 Depth deep e 8 8 8 8 8 Number of city pools .70 .11 Width in ft 30 20 20 20 20 Community use of school pool .07 0 Length in ft. 60 60 43 60 Average number of months used by community of school .50 0 1000年 Number of schools that do not have pools 100 .86 No.

# CHAPTER VII

#### CONCLUSION

### Play Areas

More than fifty percent of the play areas were less than five acres. This is not adequate space for the number of students enrolled. The surface of the majority of play areas in Oklahoma is naturally adapted to outdoor activity. It is desirable that play areas be used by the community more than reports show they are being used. As far as possible our objectives in equipment should keep in mind the use of that greatest of all gymnasia—the out-of-doors. It must never be forgotten that activity that can be carried on out-of-doors is more wholesome than the same activity carried on indoors.

#### Gymnasium Facilities

Gymnasia averaged one to every 254.5 students. This places gymnasia in the highest level according to Blair's Score Card. Yet, only twenty-two schools use gymnasia for physical education. The principal use is for athletic and auditorium purposes.

# Location

More than sixty percent of gymnasia are at ground level and are separate wings. This is highly recommended. If the gymnasium is a separate wing it is possible to have more natural light. If it is on the ground level it is a safety measure in case of fire, and is more accessible to other school facilities.

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## Size and Height

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Seventy percent of gymmasia are in either the first or second level of Blair's Score Card. Lack of height is the outstanding fault. However, the fact that Oklahoma is "basketball-minded" partially accounts for the fact that gymmasia, in this state, rank as high as they do.

Lights

Lights are adequate in more than sixty percent of the gymnasia, or the window space is twenty percent of the wall area. This high ranking is due, mainly, to the fact that our gymnasia are built in separate wings. More than fifty percent of the schools having windows on the long axis is further proof that consideration for basketball was given in the construction of Oklahoma's gymnasia, for light coming from each end of the gymnasium would be injurious to the eyes of the player, and a handicap to accurate performance in the sport.

Walls, in the majority of cases, are absorbing plaster and soft brick. This is Blair's third and fourth level. Surfaces of this type are not suitable for handball and other similar games. Too, a smooth surface of tile or glazed brick will prevent students getting severe abrasions, as they sometimes do, when coming in contact with the wall.

# Floors

Wells

B class schools reported tongue and groove hard maple. More than fifty-five percent reported air vents in the walls or

floors to prevent buckling. The fact that so many schools have good floors, and want to protect them, may be a reason for so little use of them by the entire school and community.

Bleachers

The majority of gymnasia have permanent non-lifting bleachers for more than half the student body. This is the third level of Blair's Score Card. Lifting tiers and removable type of bleachers are more advisable in that being able to remove these seats gives more space for the activity of the student.

#### Service Facilities

#### Dressing Room

Insufficient locker space is shown. Few have non-slip floors. Safety and health would demand improvement in these facilities. In more than sixty-five percent of the schools the dressing rooms, gymnasium and athletic fields are easy of access to each other. Over fifty percent of walls of dressing rooms are concrete or plaster. They should be brick or tile. In seventy-four percent of the schools girls facilities are the same as boys.

# Team Room

Between fifty and seventy percent of schools rank in Blair's second level. This is not an essential room, but a desirable one. It is only natural that Oklahoma schools would have space used in this way when athletics are paramount. Fifty-five percent of girls' team rooms have the same facilities as boys.

# Shower Room

Shower rooms fall below criteria in the following: accessibility to swimming pool and athletic field; number of and arrangement of shower heads; non-slip floors; window areas and girls facilities. B class schools rate below A class, due, principally, to lack of running water.

## Sanitary Features

Accessibility between sanitary features and other facilities is from forty-four to sixty-five percent. Schools fall
below Blair's lowest level. Sanitary conditions should be
given more consideration in that the health of the student
is involved. The girls' sanitary facilities are not as good
as boys'.

#### Auxiliary Room

## Director's Office

Table VI shows only fifty-four percent of A class and twenty-two percent of B class schools having some type of director's office, and even these are poorly equipped. This condition is due, principally, to the fact that there are so few schools that have physical education. Again, girls' facilities are not as good as boys.

# Examination Room

Two schools of one hundred seventy-eight reported examination rooms. An improvement in this condition would help to raise health standards in our schools. The physical examination is a vital part of health and physical education, and it is important that these facilities be given more consideration in the planning of future schools.

# Swimming Pool

Only four of the A and B class schools of the state have swimming pools. This facility is one that would lend itself to development of the body, to safety education, is a pleasurable activity and has a tremendous carry-over value.

#### RECOMMENDATIONS

It is the opinion of the author that the following improvements be made in physical education facilities:

- 1. Larger school sites should be purchased while land is still available.
- 2. The physical education facilities in Oklahoma schools are now practically dormant so far as physical education is concerned. It is recommended that they be used to develop the whole child and the whole student body--not the few.
- 3. Sanitary features and shower rooms of the schools should be improved in that they vitally affect the health of every student. A greater number of sanitary features is especially needed.
- 4. Facilities for girls should be improved by, at least, placing them on par with boys.
- 5. An examination room should be a part of every high school plant.
- 6. More swimming facilities should be added to give every child an opportunity to learn to swim---for the sake of safety as well as for pleasure and physical development.

#### SUGGESTIONS FOR FURTHER STUDY

- 1. A study of the problems of physical education in Oklahoma might give greater emphasis to the need of a physical education program in all schools.
- 2. Make a study of suggested criteria for physical education plants.
- 3. A comparison of the physical education facilities of Oklahoma with those of neighboring states.
- 4. A study of the personnel of physical education departments in Oklahoma.

#### APPENDIX A

The following are the schools which returned questionnaires and were used in this study:

## A Class Ada Antlers Atoka Bartlesville Blackwell Bristow Capitol Hill, Okla. City Central High, Okla. City Central High, Tulsa Classen High, Okla. City Cleveland Cushing Daniel Webster, Tulsa Duncan Guthrie Holdenville Hugo Miami McAlester Norman Nowata Okemah Ponca City Putnam City, Okla. City Sallisaw Seminole Stigler Stillwater Walters Wewoka Woodward

B Class Achille Adair Afton Allen Alluwe Alma Alva Asher Avant Barnsdall Beaver Bixby Blanchard Bluejacket Boise City Bokchito Bowlegs Bray Broken Bow Broken Oak, Okla. City Burbank Calera Calumet Calvin Cameron Canute Carmen Carnegie Cascia Hall, Tulsa Cement Chandler Cherokee Cleora Colgate Commanche Cordell Covington Cowden, Cloud Chief Coweta Crescent Cyril Dale Davenport Davis Depew Dibble, Blanchard, R. 2 Dill

# B Class (continued)

Earlsboro Elgin Elk City Elmore City Empire, Duncan, R. 1 Eufala Fairfax Fairview Fletcher Fort Townson Fox Freedom Gage Garber Geary Gotebo Gould Graham Greenfield Grove Haileyville Hammon Hartshorne Healdton Helena Hennessey Hobart Hominy Idabel Inola Jenks Keota Kiefer Kinta Laverne Lenapah Mangum Mannford Marlow Martha Maud Medford Moore Moreland Mounds Mountain View Muldrow Mulhall McLish, Fittstown McLeod New Lima

Noble

Oilton Olive, Drumright Owasso Panama Panola Picher Pryor Purcell Quapaw Quinton Ramona Rattan Rush Springs Sayre Schulter Sentinel Shamrock Shattuck Shidler Slick Snyder Spaulding Sperry Spring Hill, Pharoah Stafford Strang Sulphur Tuttle Tecumseh Texhoma Tipton Temple Vanoss Vian Wanette Waurika Weatherford Weleetka Wetumka Wilburton Wilson Wilson, Henryetta, R. 1 Wolf, Dewright Wynnewood Yukon

#### APPENDIX B

Bryant, Oklahoma November 30, 1938

Dear Superintendent, Coach or Principal:

For graduate work in Physical Education, I am attempting, by means of the enclosed questionnaire, to find the extent of gymnasium facilities of the A and B class high schools of Oklahoma. In making this study, I am attempting to find if the gymnastic facilities and play areas in our high schools are sufficient.

In the event that you have facilities not listed in the questionnaire, please state what these are in the supplement, so that I will have an accurate picture of your facilities.

I believe that this study will have an educational value in that we will know what is needed to make physical education in Oklahoma a state-wide program.

Any information that you may give me will be greatly appreciated, and will be held strictly confidential. A copy of the findings will be sent you, if you desire it.

Very truly yours,

J. M. Oates, Superintendent Bryant Public Schools

## QUESTIONNAIRE

# GYMNASIUM FACILITIES IN OKLAHOMA HIGH SCHOOLS

boy	Na s	me of High School ; Class ; No.  girls in high school. Is there an Elementary  Junior High or Junior College on this  No. of students in Elementary Junior High  College Give approximate acreage of level  that might be used for playground activity  City Person
Jun	ior und	College . Give approximate acreage of level that might be used for playground activity
rep	orti	City Population; Person ng; Position
Add	ress	
		Gymnasium Facilities
		Instructions: Give approximate measurements, circle correct answer as Yes No; or check (V) correct blank.
Α.		nasium
	1.	Gymnasium Rooms
		a. How many gymnasia b. How many students use gym
		c. For what purpose other than athletics is gym
		used?
	2.	Location of Gym
		a. Is ground floor at grade elevation or
		above
		b. Is it a separate wing? Yes No c. Does it have a south exposure? Yes No
		d. Is it located so that it will permit close
		correlation of athletics? Yes No
		e. Are the windows on the long axis or ends ?
	3.	Size and Height of Cym
		a. Length of first gym second gym third
		b Width of Finet Pt. second Pt.
		b. Width of first gym ft; second gym; ft; third gym ft.
		c. Height under lowest beam and trestle of first
		gymsecond gym third gym
	4.	Light for Gym
		a. Both long sides of gym exposed to light and air.
		Yes No
		b. Window area is 30 25 20 15 10 5 % of floor space.
		c. Do you have skylights? Yes No
	5.	Walls
THE !		a. The walls are glazed brick , oak wainscot with soft brick , tile , smooth-faced brick , cement plaster wainscot with
		faced brick cement plaster wainscot with

		sand-finished plaster, unsurfaced concrete block			
6.	Floo	ors			
		Do you have narrow tongue and groove hard maple? Yes No			
	b.	Is top floor laid over diagonally laid hard pine? Yes No			
	0.	Do you have a sound reducing material between the two floors? Yes No			
	d.				
	0.				
	f.	Do you have wood blocks on end laid directly upon concrete? Yes No			
7.	Bleacher Space				
	8.	Do you have "lifting tiers" for seats? Yes No			
	b.	more than half of student body?			
		Do you have removable bleachers? Yes No			
		Are seats on long side of gym? Yes No			
	0.	Do you have permanent non-lifting bleachers at floor level? Yes No			
Ser	vice	Facilities			
1.	Dre:	ssing Rooms s! Activities			
		Do you have an area of 20 sq. ft. dressing and locker space per pupil for largest class? Yes			
	b.	Does it adjoin gym? Yes No			
		Is it readily accessible from athletic field? Yes No			
	d.	Do you have 20 percent window area? Yes No			
	f.	Does it have a non-slip tile floor? Yes No Walls are tile , brick , plaster, wood			
(2	) G1:	rls' Activities			
		Do you have an area of 20 sq. ft. dressing and locker space per pupil for largest class? Yes No			
	b.	Does it adjoin gym? Yes No			
		Is it readily accessible from athletic field? Yes No			
	d.	Do you have 20 percent window area? Yes No			
	e. f.	Does it have a non-slip tile floor? Yes No Walls are tile , brick , plaster wood			
		wer Room ys' Activities			

B.

		Adjacent to locker room? Yes No	
	b.	athletic field ?	
	c.	Do you have fourteen sq. feet of floo each shower head? Yes No	
	d.	Do you have one shoulder-height showe four boys in largest class? Yes N	
	e.	Non-slip floor? Yes No	
	f.	Walls are marble , tile , con	crete ?
	g.	Walls are marble , tile , con Window area is 25 , 20 , 10 5 % of floor area?	
	h.	Do windows have copper-covered frames Yes No	and sashes?
(2	) G1	rls† Activities	
	a.		mming pool
	b.	Separate booth and shower for each gi	rl in the
	C.	Four dressing rooms for each shower h	ead?
	d.	A minimum of one shower to each six glargest class? Yes No	
	0.	Shoulder-high showers arranged in row control of shower? Yes No	
	f.		
	h.	Are your partitions wood, steel_ Are the window frames and sashes cove copper? Yes No	red with
	211	m Room ys' Activities	
,		Do you have one large dressing room?	Yes No
	b.	Do you have a separate dressing room team? Yes No	
		Size of dressing room ft.?	
		Are rooms convenient to the showers? Are rooms equipped with benches and lockers ?	
(2		rls' Activities	
		Do you have one large dressing room? Do you have a separate dressing room team? Yes No	
		Size of dressing room ft.?	
		Are rooms convenient to the showers?	
	е.	Are rooms equipped with benches and lockers ?	, hooks
4.		itary Features	
	a.	Do you have an entrance to toilet from and locker rooms ?	
		Do you have windows in toilet room?	
	C.	Do you have tile or concrete	floor?

	How many toilets for girls?		
e.	How many urinals do you have for bo	toilets	lavatories
Auxilia	ry Room		
	sical Director's Of	fice	
(1) 50	ys' Activities		37
2.	Small well-lighted	room; les	NO
0.	Approximate size of Conveniently locat	I room	I be
C.	Conveniently locat	ed for superv	raton or armieric
	field gym		
	Equipped with show	ercorre	tcloset
	rls' Activities Small well-lighted	Maaw Vaa	We
	Approximate size o		NO
0.	Conveniently locat	ed for superu	Teion of othletic
	field gym		
4-	Equipped with show	er toil	et closet
	?	Million to recommendate	-
The second secon	mination Room		
	ys! Activities		
	Size		m
D.	Is room directly c		
	Director's office		
G.	Percent of light s	bacet vo	and A description of the second
	10		
101 01	rls' Activities		
	Size		
	Is room directly c	onnected with	Physical
	Director's office	and locker ro	om? Ves No
C-	Percent of light s		
	10		-
	Control Contro		

# SUPPLEMENT TO QUESTIONNAIRE

Pla	y Areas					
A.			of all or		ool play are	es:
В.	Number o	f play ar	reas			
	1. Type	of blead	ese areas?			Marin Walan
D. If play areas for boys and girls are divided, girdinensions of boys ; girls						ve
Gym	masium					
tha					d in questic picture of	
	nming Poo		Luming pool	19 Yes	No	
	1. What 2. Dept	is length of pool	th of pool	ft.	Width t. At shall	ft. low end
В.	Do you h	ave a cit	ty pool?	Yes No ft.	Width	ft.
C.	Remarks	concernia	ng swimmin	g faciliti	es in your	community
Ext	ent Schoo	l Facili	ties are U	sed by the	Community:	
Fac	ilities		Hours per	r month	What mor	nths
Poo	masium	l de				

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