

A STUDY TO DETERMINE THE STATUS OF PHYSICAL EDUCATION  
IN THE FOUR CLASSES OF HIGH SCHOOLS  
IN THE STATE OF KANSAS

by 45

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## INTRODUCTION AND PURPOSE

The purpose of this study was to determine the status of physical education in the various classes of schools (AA-A-B-BB) in the state of Kansas and compare them by using items which could provide a basis for comparison of the four classes.

This information could be used as a guide for future graduates of Kansas State University in the selection of the type of school in which they might seek employment.

It was also hoped that this study could be used as an aid for further study of physical education in the state of Kansas.

## REVIEW OF LITERATURE

An additional step in the study was to conduct an investigation of literature in the library of the Department of Physical Education which was relative to this problem. The investigation produced two surveys concerning the status of physical education in Class AA and in Class BB schools which were helpful in making some comparisons: Robert F. Sulzman's, "A Survey of the Physical Education Program with Respect to Staff, Facilities, and Activities of the "BB" Schools of Kansas in 1960," and Richard Ephraim Towers, "A Study of the Status of Physical Education in Class AA High Schools in Kansas, 1960."



## METHOD OF STUDY

A simple, short answer type of questionnaire was constructed to collect information pertaining to the size of school, general information, the facilities, and the equipment.

The questionnaire consisted of a three page form and included yes and no questions and fill-in answers. It was felt this type of questionnaire would require less time to answer and would result in a larger number of returns and hence a more accurate and complete study. A copy of the questionnaire is included in the appendix.

The Handbook published by the Kansas High School Activities Association (6) which was also consulted, showed 56 Class AA high schools with an enrollment which ranged from 515 to 2,599. There were to be 64 Class A schools, but because of a tie in enrollment this figure was reduced to 62 with a range in enrollment of 208 to 512 students. There was a total of 128 Class B high schools whose enrollments ranged from 101 to 217. The Class BB included all those schools that had a student body of less than 100, of which there were 209 schools. The lowest reported enrollment figures in Class BB was 21.

It was first decided to make a random sampling of all Kansas High schools by selecting every fourth school from an alphabetical list. However, after this was accomplished it was necessary to make an adjustment whereby 25 per cent of the schools in each class would be more representative of

number of schools in each classification.

The original sampling yielded 18 Class AA, 25 Class A, 33 Class B, and 42 Class BB. It was then necessary to delete some schools and add others as 14 equaled twenty five per cent of Class AA, Class A 16, Class B 32, and Class BB 52. This was accomplished by again adding or deleting every fourth school that fell into each classification according to the number of schools needed in each class for the study.

TABLE I  
Results of the Returned Questionnaires

	Class AA	Class A	Class B	Class BB
Questionnaires mailed	14	16	32	52
Questionnaires returned	11	9	23	38
Per cent of return	79	56	71	73
Percentage of classification	19.75	17.75	18.25	17.75

## RESULTS AND DISCUSSION

### PART I. GENERAL INFORMATION

The introduction to each table appears as a summarized statement of each question as taken from the survey questionnaire. This is followed by an analysis and interpretation of the table which is set up for each question.

The first question has been presented earlier as "Results of the Returned Questionnaires."

TABLE II  
THREE OR FOUR YEAR SCHOOL

Answer	Class AA	Class A	Class B	Class BB
Three Year	10	3	0	0
Four Year	1	6	23	38

In Class AA, ten responded as being a three year high school and one as a four year. In Class A, six were four year schools and three had a three year program. All twenty-three Class B and thirty-eight Class BB schools had four year programs.

TABLE III  
NUMBER OF BOYS ENROLLED IN SCHOOL

Classification	Number of Schools	Enrollment
Class AA	1	315
	2	367
	1	380
	1	410
	1	450
	1	500
	1	700
	1	900
	2	1000

TABLE III, cont.

Classification	Number of Schools	Enrollment
Class A	1	130
	1	135
	1	160
	1	161
	1	165
	1	173
	1	226
	1	257
	1	61
Class B	1	62
	2	75
	1	78
	1	80
	1	81
	2	85
	1	86
	2	90
	1	94
	1	97
	3	100
	1	120
	1	125
	1	130
	1	137

The Class AA school enrollment ranged from 315 to 1,000 for a total of 6,289 boys in the 11 schools for an average of 572 boys per school. In Class A only eight of the ten reported their enrollment. The range was from 130 to 257 for an average of 176 boys per school. The 20 for the 23 Class B schools answering this question had a range in enrollment from 61 to 137 for an average of 93 boys. In Class BB only 35 of the 38 schools indicated their enrollment figures. These ranged from 19 to 75 for an average of 39 boys.

It should be noted that for the purpose of classification, the total enrollment of the school is considered, but this questionnaire was concerned only with the total number of boys in the school.

TABLE IV

## NUMBER OF INSTRUCTORS TEACHING BOYS' PHYSICAL EDUCATION

Classification	Number of Schools	Instructors	Per Cent
Class AA	1	5	9
	2	3	18
	3	2	27
	5	1	46
Class A	8	1	100
	1	Did not answer	
Class B	2	3	9
	3	2	13
	18	1	78
Class BB	3	2	8
	35	1	92

Forty-six per cent of the replying Class AA schools indicated that one instructor directed the Physical Education program. This was significantly larger than the 4 per cent reported by Towers (5) in his 1960 study. One-hundred per cent of the Class A schools, 78 per cent of the Class B, and 92 per cent of the Class BB schools in this study had only one instructor teaching the boys physical education.

The reason for the relatively small number of instructors required to administer the physical education program in the individual schools is perhaps reflected in the next table.

TABLE V

## NUMBER OF REQUIRED SEMESTERS OF PHYSICAL EDUCATION STUDENTS

Classification	Number of Schools	Semesters	Per Cent
Class AA	3	4	27
	6	2	55
	2	1	18
Class A	2	4	28
	5	2	72
	Two of the 3-year high schools have physical education on an elective basis.		
Class B	1	7	4
	6	4	26
	13	2	56
	3	1	14
Class BB	1	8	2.6
	1	5	2.6
	8	4	21.1
	27	2	71.1
	1	1	2.6

This aspect of the study indicated that the great majority of the high schools, regardless of their classification, offered only two semesters of physical education. Therefore, this would definitely reduce the number of instructors required to administer the program.

Robert Sulzman's (4) study, in 1960, of all the Class BB schools in the state of Kansas indicated that only twenty per cent of the schools had a two semester requirement. The remaining 80 per cent required four to eight semesters. The figures by Mr. Sulzman represented 82 per cent of all the Class BB schools existing at that time. In the eight years that have elapsed one might assume that there has been an increase of 50 per cent in the schools requiring two semesters, however the fact that Mr. Sulzman's study included almost 5 times the number of schools might be a significant factor which could alter the results.

In the smaller classes of schools it could be assumed that the physical education instructor was called upon to teach subjects other than physical education.

TABLE VI  
NUMBER OF CLASS MEETINGS PER WEEK

Classification	Number of Times Classes Met Per Week	Number of Schools	Percentage
Class AA	5	9	82
	3	1	9
	Alternate	1	9
	(3 one week, 2 next)		

TABLE VI, cont.

Classification	Number of Times Classes Met Per Week	Number of Schools	Percentage
Class A	5	4	44
	3	1	12
	Alternate	4	44
Class B	5	8	35
	4	2	9
	3	7	30
	Alternate	4	17
One school had 5 for their advanced program and alternate for the regular classes. Another school had no plan, but it was estimated that they met four times per week.			
Class BB	5	20	53
	4	3	8
	3	7	18
	Alternate	2	5

In 1960, according to Sulzman (4), 70 per cent of the Class BB schools met five times per week as compared to 53 per cent in 1968.

Richard Towers (5), also in 1960, made a survey of the Class AA schools and his report reported that 50 per cent of the schools met five times a week. When compared to this study, it can be noted that there was a marked increase in the number of schools requiring more physical education of their students in Class AA schools.



TABLE VII  
AVERAGE CLASS SIZE

Classification	Number of Schools	Class Size	Percentage
Class AA	1	90	9
	1	45	9
	4	40	36
	1	34	9
	2	30	18
	1	28	9
	1	20	9
Class A	1	45	12
	1	33	12
	1	30	12
	1	25	12
	1	24	12
	1	21	12
	1	20	12
	1	26	12*
	1	12	12*
Class B	1	31	4
	3	30	13
	1	27	4
	1	26	4
	2	25	13
	1	24	4
	2	22	7
	5	20	22
	1	17	4
	2	16	7
	3	15	13
	1	14	4
Class BB	1	27	2.6
	2	25	5
	1	24	2.6
	2	21	5
	3	20	7.8
	1	19	2.6
	1	18	2.6
	1	17	2.6
	4	16	10.5
	5	15	13
	6	12	16
	4	10	10.5
	2	9	5
	1	26	2.6**

\* on an elective basis

\*\* boys and girls combined

In the Class AA schools the class size ranged from a low of twenty students to a high of ninety per class. The average sized class for the AA schools answering this survey was forty boys. In Class A the average was twenty-eight boys with a range of twenty to forty-five. The Class B schools ranged from fifteen to thirty-one for an average of twenty-two. In Class BB the low was nine and the high twenty-five with the average being sixteen boys per class.

TABLE VIII A

## LENGTH OF PHYSICAL EDUCATION CLASS IN MINUTES PER DAY

Classification	Number of Schools	Minutes	Per Cent
Class AA	2	60	18
	1	58	9
	5	55	45
	3	50	27
Class A	1	57	11
	6	55	67
	1	52	11
	1	40	11
Class B	1	60	4
	1	58	4
	1	57	4
	18	55	67
	2	50	8
Class BB	1	30	2.6
	2	40	5.2
	1	42	2.6
	2	45	5.2
	10	50	26.3
	14	55	37.0
	1	57	2.6
	4	60	10.5
	2	70	5.2
	1	90	2.6

TABLE VIII B

## LENGTH OF PHYSICAL EDUCATION CLASS IN MINUTES PER WEEK

Classification	Number of Schools	Minutes	Per Cent
Class AA	1	125	9
	1	150	9
	1	250	9
	5	275	45
	1	290	9
	2	300	18
Class A	1	94	11
	1	100	11
	2	137	22
	1	156	11
	4	275	44
Class B	5	137	22
	1	150	4
	5	165	22
	1	180	4
	1	200	4
	2	220	7
	6	275	26
	1	285	4
	1	290	4
Class BB	1	90	2.6
	1	120	2.6
	1	125	2.6
	1	135	2.6
	3	137	7.8
	4	150	10.5
	1	160	2.6
	1	165	2.6
	1	180	2.6
	1	200	2.6
	1	210	2.6
	1	220	2.6
	1	225	2.6
	1	228	2.6
	7	250	18.4
	1	260	2.6
	9	275	23.8
	1	280	2.6
	1	450	2.6

The lower three classes, as the table indicates, devoted a minimum of time in the classroom per day and per week. The figures shown in the table were derived by multiplying the number of class meetings in a two week period by the length of the class time, and dividing by two to arrive at a weekly time basis.

The range for Class AA was from a low of 125 to a high of 300 minutes per week. This averages 254 minutes, or slightly more than 50 minutes per day. The Class A schools had fewer minutes per week when compared to the other classes. The low was 94, the high 275 with an average of 192 minutes per week in the classroom. In Class B the range fell between 137 and 290 for an average of 205 minutes per week. The Class BB schools average was somewhat larger due to the one school reporting as having 450 minutes of class time per week. The range was from 90 to the 450, and the average was 212 minutes.

Sulzman's (4) survey showed that in 1960, 48 per cent of the BB schools had a class period which was sixty minutes in length, 17 per cent were fifty-five minutes, 9 per cent had a fifty minute period, and 14 per cent had a forty-five minute session, and 2 per cent with more than a sixty minute period.

TABLE IX  
NUMBER OF PHYSICAL EDUCATION CLASSES TAUGHT

Classification	No. of Teachers	Physical Education	No. of Teachers	Other Classes	No. of Teachers	Total Hours
Class AA	1	6	1	3	1	35
	6	5	1	1	6	25
	3	4	9	0	4	20
	1	2				
Class A	1	6	1	3	2	30
	3	5	2	2	5	25
	3	3	6	0	1	8
	1	1			1	5
Class B	3	5	1	6	1	36
	2	4	4	5	3	35
	6	3	10	4	7	30
	13	2	8	2	14	25
	16	1	5	2	1	22
			6	0	5	20
					1	12
					1	10
					1	8
					2	5
					1	3

In Class AA 82 per cent of the instructors had no other classes; Class A 66 per cent; Class B 22 per cent; and in Class BB 16 per cent.

TABLE X  
SCHOOLS REQUIRING PHYSICAL EXAMINATIONS

Classification	Number of Schools	Answer	Per Cent
Class AA	2	Yes	18
	8	No	82
	1	Swimming only	
Class A	4	Yes	44
	5	No	56

TABLE X, cont.

Classification	Number of Schools	Answer	Per Cent
Class B	13	Yes	65
	8	No	35
	2	Will be required next year	
Class BB	22	Yes	58
	16	No	42

Physical examinations should certainly be one of the basic focal points in establishing a physical education program. Williams and Brownell (3) state that every student taking physical education should have a complete health examination by a physician.

It was evident that a large per cent of schools in the state of Kansas are well below this standard when only 56 per cent of those in this study required medical examinations.

TABLE XI

## BUDGET

Classification	Yes	No
Class AA	8	3
Class A	3	6
Class B	5	18
Class BB	4	34

The budget for the Class AA schools ranged from a low of \$360 to a high of \$1,348. The average was determined to be

\$913.43. One school was allotted \$1,700 and this was shared with the girls' physical education program.

Of the Class A schools that indicated yes, one had a budget of \$125, another \$150, and the third did not report the amount budgeted.

In the breakdown of the Class B schools one had a \$200 budget, two had \$300, one had \$1,000, and another \$3,000. It would seem that the two larger sums could possibly be for the upgrading of the program and could probably be lowered considerably once the more expensive equipment has been purchased.

The range of the Class BB schools was from a low of \$150 to a high of \$600 with the average being \$350.

TABLE XII  
EXTRA-CLASS ACTIVITIES

Activities	Class AA	Class A	Class B	Class BB
Sports	5	4	14	28
Sports and Intramurals	2	1	5	3
Sports and other	1	1	1	2
Intramurals	1	1	1	2
Intramural and other	1	0	0	0
Other	1	0	1	2
None	0	0	0	3

The majority of physical education teachers were also hired as coaches. This was especially true in the Class B and BB schools where each had 82 per cent of the instructors also coaching.

Tower's (5) report stated that 94 per cent of Class AA schools required the physical education instructor to coach some athletic sport. While this study did not request if coaching was a requirement, 73 per cent indicated that they were involved in some aspect of coaching.

Sulzman (4) found in Class BB that 97 per cent of the physical education teachers were also hired as an athletic coach. This report showed a 10 per cent decrease with 87 per cent having coaching duties.

TABLE XIII  
TEACHING SALARY AND YEARS OF EXPERIENCE

Classification	Range	Salary		Experience	
		Mean		Range	Mean
Class AA	\$6,800--\$9,800	\$7,855		5--18	9.8
Class A	\$5,200--\$8,000	\$6,956		1--18	5.4
Class B	\$5,000--\$9,350	\$6,895		1--24	7.0
Class BB	\$5,200--\$8,800	\$6,374		1--17	4.2

The survey indicated that the average year's of experience was 9.8 for Class AA, 5.4 for Class A, 7.0 for Class B, and 4.2 for Class BB.



Their pay was generally adequate, as the mean salary for each of the classes was \$7,855 for Class AA; \$6,956 for Class A; \$6,895 for Class B; and \$6,374 for the Class BB schools.

Sulzman (4) fortunately included salary in his survey and found the mean in 1960 to be \$4,392.62. In the eight years that have elapsed there has been nearly a \$2,000 increase in the salaries of the physical education instructors in the Class BB schools.

TABLE XIV  
PHYSICAL EDUCATION AS A MAJOR OR MINOR

Classification	Major	Minor	Neither	Per cent of Majors
Class AA	10	1	0	91
Class A	9	0	0	100
Class B	20	3	0	87
Class BB	31	5	2	81

The schools of Kansas had a very high per cent of qualified personnel, in terms of preparation, to administer a physical education program.

Tower's (5) study showed that 91 per cent of the reporting schools indicated that their staff held a major in physical education. The figure in 1968 was also 91 per cent.

There has been an increase in the percentage of Class BB instructors holding a major, for in 1960 (4) the figure was 60 per cent as compared to the 82 per cent in 1968.

TABLE XV  
MASTERS DEGREE IN PHYSICAL EDUCATION

Classification	Yes	No	Percentage
Class AA	4	7	36
Class A	1	8	11
Class B	1	22	5
Class BB	2	35	9

Out of the eighty-one schools reporting only eight teachers had a Masters Degree in Physical Education. One in Class B indicated a Masters Degree in Recreation, while one in Class BB will complete his at the end of the 1968 summer session.

## PART II. PHYSICAL FACILITIES

This section was included to give the interested person a quick, brief idea of the facilities available in the various classes of Kansas high schools.

TABLE XVI  
SIZE OF THE GYMNASIUM

	Class AA	Class A	Class B	Class BB
Large	10	7	16	19
Medium	1	2	6	15
Small	0	0	1	4

The large gymnasium is considered to be sixty feet by ninety feet or larger. The medium, forty feet by sixty feet. And the small gymnasium is anything less than forty feet by sixty feet.

There were only 11 per cent of the Class BB schools reporting that had a small court. Fifty per cent had large gymnasiums, and 39 per cent had medium. These figures compare favorably with Sulzman (4), who found in 1960 that 50 per cent of Class BB had a large gymnasium, 34 per cent had medium, and 15 per cent had a small gymnasium.

In the Class B, 70 per cent had large gyms, 26 per cent had medium, and 4 per cent had a small gymnasium.

In Class A schools, 77 per cent had the large structure, 23 per cent had medium, and there were no small gyms reported.

In Class AA 91 per cent had large gymnasiums, 9 per cent had medium, and there were no small gyms.

TABLE XVII

## MULTI-PURPOSE ROOM AND SIZE

Classification	Number	Answer	Number	Size
Class AA	5	Yes	1	20' x 30'
	6	No	1	30' x 60'
			1	30' x 70'
			1	70' x 70'
			1	Did not report the size

TABLE XVII, cont.

Classification	Number	Answer	Number	Size
Class A	5	Yes	2	30' x 60'
	4	No	1	60' x 70'
			1	Small
			1	Did not report the size
Class B	8	Yes	3	40' x 60'
	15	No	1	45' x 50'
			1	60' x 70'
			1	50' x 80'
			2	Did not report the size
Class BB	5	Yes	1	35' x 40'
	33	No	1	30' x 70'
			1	60' x 90'
			1	60' x 120'

Of the Class AA, 44 per cent had a multi-purpose room. In Class A 55 per cent, Class B, 35 per cent. And in Class BB 13 per cent had a multi-purpose room.

TABLE XVIII

SIZE OF THE PLAYFIELD  
(Outdoor Classroom Space)

	Class AA	Class A	Class B	Class BB
Large	7	5	7	10
Medium	1	1	11	23
Small	3	3	5	5

In the context of this survey, large is defined as being seven acres or more; medium of three to six acres; small is anything less than three to six acres. None was also included as a possible choice and not one of the eighty one schools indicated that no space was available.

The latest high school standards for outdoor classroom space according to Brownell and Williams (3) are a minimum of 10 acres, plus 1 acre for each 200 students in regular attendance. According to this study there were 64 per cent of all the schools answering who did not meet the minimum standards of Brownell and Williams. This figure was quite possibly even higher, but the question as stated did not adequately define the large playfield.

TABLE XIX  
ATHLETIC FIELD FOR PHYSICAL EDUCATION

Classification	Yes	No
Class AA	6	5
Class A	8	1
Class B	16	7
Class BB	35	3

Sixty-six per cent of the Class AA schools, 88 per cent of the Class A, 70 per cent of the Class B and 92 per cent of the Class BB schools used the athletic field for physical education.

TABLE XX  
NUMBER OF TENNIS COURTS

Classification	Number of Schools	Number of Courts
Class AA	2	6
	1	5
	2	4
	4	2
	2	0
Class A	1	8
	2	4
	1	3
	1	2
	1	1
	3	0
Class B	1	4
	1	3
	9	2
	4	1
	8	0
Class BB	1	3
	8	2
	6	1
	23	0

Of the Class AA schools 18 per cent did not have tennis courts; 33 per cent of the Class A schools did not have courts; 35 per cent of the Class B; and 60 per cent of the Class BB schools had no tennis courts.

The Class BB figures show an increase in the number of courts, for Xulzman (4) reported that 18 per cent had courts as compared to the 40 per cent in this survey.

The majority of the courts were surfaced with concrete with the balance covered by asphalt. There were no dirt or clay courts.

In response to the question concerning swimming pools, three Class AA schools reported as having a swimming pool. One of which had a pool at least 30' x 75', and two which were at least 20' x 60'.

Tower's (5) found 10 Class AA high schools had a swimming pool for a per cent of 21. This compares to the 33 per cent as shown by this survey.

TABLE XXI

NUMBER OF SHOWER HEADS AVAILABLE FOR THE  
BOYS' PHYSICAL EDUCATION CLASSES

Classification	Number of Schools	Number of Shower Heads
Class AA	1	35
	1	31
	1	27
	2	16
	3	12
	2	10
	1	6
Class A	1	15
	1	12
	2	10
	1	8
	3	6
	1	5
Class B	1	32
	3	16
	1	12
	1	10
	1	9
	2	8
	2	7
	3	6
	4	5
	3	4
	2	3

TABLE XXI, cont.

Classification	Number of Schools	Number of Shower Heads
Class BB	1	12
	1	9
	5	8
	8	6
	10.	4
	5	3
	8	2

The Class AA schools had an average of 17.0 shower heads per school. In Class A, the average was 8.7; in Class B it was 8.6; and the Class BB schools had an average of 4.7 shower heads per school.

To arrive at some basis for a comparison of the classifications the average number of boys in each class session was divided by the average number of shower heads for each of the four classes of high schools. In the Class AA schools there were 2.4 boys per shower head; Class A had 3.2; Class B 3.1; and the Class BB schools had 3.4 boys to each shower head.

These figures compare favorably with Nash (2) who states that approximately 12 to 14 square feet of space should be allowed for each shower head, one shower head for each squad of four, using the largest class as the scheduling basis.



TABLE XXII  
BADMINTON COURT IN FLOOR PLAN

Classification	No. of Schools	Answer	Schools	No. of Courts
Class AA	6	Yes	1	8
	5	No	1	4
			2	3
			2	2
Class A	3	Yes	3	4
	6	No		
Class B	12	Yes	4	4
	11	No	5	3
			3	2
			1	1
Class BB	13	Yes	1	8
	25	No	1	3
			4	2
			7	1

Sixty per cent of the Class AA schools had a floor plan which included a badminton court. Courts were also in the floor plans of 33 per cent of Class A schools, 52 per cent of the schools in Class B, and 40 per cent of the Class BB schools.

### Part III. Equipment

The term "equipment" refers to those items that are not a part of the building or playground, but nevertheless, are more or less permanent. Once furnished, they make no further demands on the budget for an indefinite period. (1)

This study was concerned only with equipment, because if the supplies were added the study would become somewhat burdensome and out of proportion.

Most of the equipment listed in this portion was devoted, in the main, to gymnastics. It was intended to show that the high school students of Kansas have little opportunity to participate in this activity, even in the physical education programs. This failure to provide for a program of gymnastics could possibly be a factor in the lack of upper body strength in our young people today. Most certainly this can be overcome by the inclusion of other activities, but gymnastics develops total body strength and coordination, while most of our activities are built around leg strength and speed.

TABLE XXIII  
BASKETBALL GOALS

Classification	Number of Schools	Number of Goals
Class AA	1	14
	1	10
	1	8
	8	6
Class A	7	6
	2	4
Class B	12	6
	5	4
	2	3
	4	2
Class BB	1	9
	11	6
	13	4
	1	3
	8	2
	4	Did not report the number of goals

The average number of goals for Class AA was 7.3, for Class A, 5.5; for Class B, 4.5; and for Class BB, 4.4. When these figures were divided into the average number of boys per class the resulting figures were: Class AA had 5.5 boys per goal, Class A had 5.1, Class B had 4.9, and Class B had 3.6 boys per goal.

TABLE XXIV  
VOLLEYBALL STANDARDS

Classification	Number of Schools	Number of Standards
Class AA	2	8
	2	6
	4	4
	1	3
	2	2
Class A	5	4
	1	3
	2	2
	1	1
Class B	1	8
	1	6
	1	5
	3	4
	6	3
	3	2
	7	1
	1	0
Class BB	7	4
	2	3
	17	2
	8	1

The average for the different classes of schools was as follows: Class AA was 4.6, Class A, 3.1; Class B was 2.7; and Class BB was 2.0 standards per school.

TABLE XXV  
PER CENT OF SCHOOLS HAVING GYMNASTIC EQUIPMENT

	Class AA	Class A	Class B	Class BB
Tumbling mats	91	100	87	84
Parallel bars	100	88	43	37
Climbing ropes	82	88	65	55
Horse, vaulting	100	77	30	24
Trampoline	91	66	48	32
Springboard	73	33	22	13
Horizontal bar	91	66	30	21
Vaulting buck	36	11	9	3
Rings, flying	45	22	17	3
Low parallel bar	73	22	4	8
Balance beam	91	77	17	21
Horizontal ladder	27	11	0	5
Rueter board	55	11	0	5
Uneven parallel bars	64	44	22	5
Stall bars	9	11	0	0
Rings, traveling	27	0	4	5
Beat boards	27	11	9	3
Rings, still	27	22	9	3
Vaulting box	18	0	13	5
Exercise bar	18	0	0	5

The average number of mats per school for each of the classes was: 16.3 for Class AA, 8.3 for Class A, 5.4 for Class B, and 5.6 for Class BB.

For Class AA there were 20 boys to a set of parallel bars, in Class A there were 28 to a set, in Class B it was 20, and in Class BB there were 14.5 boys to each bar.

The per cent of schools that had climbing ropes was 82 for Class A, 88 in Class A, 65 in Class B, and 55 in Class BB.

For those schools that had a vaulting horse Class AA leads with 100, Class A with 77, Class B with 30, and Class BB with 24.

Ninety-one per cent of the Class AA schools had a trampoline, while 66 per cent of the Class A schools had trampolines. This compared to the 48 and 31 per cent of the Class B and BB schools respectively.

In schools that had springboards, the Class AA schools had 73 per cent, Class A had 33 per cent, Class B had 22 per cent, and Class BB had 13 per cent.

Ninety-one per cent of the Class AA schools had possessed a horizontal bar, Class A had 66 per cent, Class B 30 per cent, and Class BB had 21 per cent.

Thirty-six per cent of the Class AA schools had a vaulting buck, 11 per cent of the Class A schools, 9 per cent of Class B, and 3 per cent of the Class BB schools.

The flying rings was also an uncommon piece of equipment in Kansas schools. Only 45 per cent of the Class AA schools had rings. This figure dropped off to 22 per cent in Class A, 17 per cent in Class B, and 3 per cent in the Class BB schools.

In percentages of schools that had low parallel bars there was a sharp decline after the high of 73 per cent in the Class AA schools to that of 22 per cent in Class A, to but 4 per cent of the Class B schools, and 8 per cent of the Class BB schools.

The per cent of schools that had a balance beam was 91 for Class AA, 77 for Class A, 17 for Class B, and 21 per cent for Class BB.

Of the Class AA schools, 23 per cent had a horizontal ladder, 11 per cent of Class A, none in Class B, and 5 per cent in Class BB.

Again the Class AA schools led in percentages of those schools that had a rueter board. Fifty-five per cent of Class AA, 11 per cent of Class A, none in Class B, and 5 per cent of the Class BB schools.

Only 9 per cent of the Class AA and 11 per cent of the Class A schools had stall bars. Neither Class B or BB had this piece of equipment.

There were six schools that reported traveling rings. This represented 27 per cent of the Class AA schools, 0 per cent of the Class A, 4 per cent of Class B, and 5 per cent of Class BB.

For the uneven parallel bars the percentages were: 64 for Class AA, 44 for Class A, 22 for Class B, and 5 per cent for Class BB.

Twenty-seven per cent of the Class AA schools had a beat board, 11 per cent of the Class A schools, 9 per cent of the Class B, and 3 per cent of the Class B schools.

The above figures closely represent the percentages of schools in each classification that had still rings. There were 27 per cent of the Class AA schools, 22 per cent of the Class A schools, 9 per cent of the Class B, and 3 per cent of the Class BB schools had the still rings.

The vaulting box was a piece of equipment not found in too many schools as only 18 per cent of the Class AA schools had a vaulting box. The percentage then dropped to 0 in Class A, 13 per cent of the Class B, and 5 per cent of the Class BB schools.

The exercise bar was another scarce item was 18 per cent found in the Class AA schools, 0 in both Class A and B, and 5 per cent of the Class BB schools had at least one bar.

TABLE XXVI

TABLE TENNIS TABLES

Classification	Number of Schools	Number of Tables
Class AA	1	4
	1	3
	4	2
	3	1
	2	0
Class A	1	5
	1	4
	3	2
	4	0
Class B	1	5
	1	4
	7	2
	2	1
	12	0
Class BB	1	4
	10	2
	14	1
	13	0

In per cents, the Class AA schools had 82 per cent, the Class A 55 per cent, Class B 48 per cent, and Class BB 66

per cent had at least one table tennis table.

TABLE XXVII  
TETHERBALL STANDARDS

Classification	Number of Schools	Number of Standards
Class AA	1	4
	10	0
Class A	9	0
Class B	1	3
	2	2
	2	1
	18	0
Class BB	1	6
	3	3
	3	2
	4	1
	27	0

The per cent of schools that had at least one tetherball standard was 9 per cent of Class AA, 0 per cent of Class A, 22 per cent of Class B, and 29 per cent of the Class BB schools.

TABLE XXVIII  
SHUFFLEBOARD COURTS

Classification	Number of Schools	Number of Courts
Class AA	1	2
	1	1
	1	Indicated yes
	8	0
Class A	2	2
	3	1
	4	0



TABLE XXVIII, cont.

Classification	Number of Schools	Number of Courts
Class B	5	2
	2	1
	16	0
Class BB	1	3
	3	2
	6	1
	1	Indicated yes
	27	0

Twenty-seven per cent of the Class AA, 55 per cent of the Class A, 30 per cent of the Class B, and 29 per cent of the Class BB schools had at least one shuffleboard court.

Other.

Three Class BB schools indicated that they have peg boards.

No other equipment was listed by those answering the questionnaire.

TABLE XXIX  
STRENGTH DEVELOPMENT EQUIPMENT

Equipment	Class AA	Class A	Class B	Class BB
Weights & Isometrics	6	4	4	14
Weights only	2	2	12	8
Isometrics only	1	1	2	2
Exergenic	0	1	5	2
None	1	1	5	12

The concluding question on the survey was, "Do you include weight-lifting in your physical education program?" Isometric exercise, or a combination of the two.

In Class AA 55 per cent of the schools offered a combination of weights and isometric exercises, 18 per cent had weights only, 7 per cent isometrics only, and 9 per cent did not offer either of the two.

The Class A schools had 44 per cent that offered the combination, 22 per cent had weights only, 11 per cent had an isometric program, 11 per cent used the exergenie, and 11 per cent did not offer weights or isometrics.

Seventeen per cent of the schools in Class B had a combination of weights and isometrics, 52 per cent had the weights, 9 per cent had isometrics, and 21 per cent had neither.

In Class BB 37 per cent of the schools had a combination of weights and isometrics, 21 per cent had weight lifting, 5 per cent had isometrics, 5 per cent had exergenes, and 21 per cent did not offer either of the two.

#### SUMMARY

There are 455 high schools in the state of Kansas. Questionnaires were sent to 114 which represented 25 per cent of each of the four classifications. The 81 schools responding represented 19.75, 17.75, 18.25, 17.75 per cent of Class AA, Class A, Class B, and Class BB schools respectively.

Ten of the 11 Class AA were three year high schools and three of the nine Class A. All of the Class B and BB schools had a four year program.

The enrollment of boys ranged from 315 to 1,000 in Class AA, for an average of 572; Class A from 135 to 257 averaging 176; 61 to 137 in Class B whose average was 93; and Class BB from 19 to 75 for an average of 39 boys. It must be remembered that for purposes of classification the total enrollment was considered. Hence the discrepancy between some of the high and low figures between the classes.

The majority of schools had but one instructor to administer the physical education program. The results of the survey showed that 46 per cent of the Class AA, 100 per cent of the Class A, 78 per cent of the Class B, and 92 per cent of the Class BB schools reporting had but one instructor.

The same majority also applied to the number of semesters of physical education that were required. Fifty-five per cent of the Class AA, 72 per cent of the Class A, 56 per cent of the Class B, and 71 per cent of the Class BB schools required only two semesters of physical education.

In class meetings per week the Class AA and BB schools led the way with 82 and 53 per cent respectively, with five meetings per week. Class A followed with 44 per cent and Class B with 35 per cent having five meetings per week. The majority of the remaining schools met three times each week. One significant finding was that of the Class A schools, 44 per

cent, met on alternate days. The consequence of this was that the Class A schools allowed less time for physical education as compared to the other three classes.

The average size class for Class AA was forty, Class A was twenty-eight, Class B twenty-two, and Class BB with sixteen boys per class.

For minutes spent in the classroom per week it was found that the Class AA schools ranged from of 125 to 300 minutes per week for an average of 254 minutes. The Class A schools ranged from a low of 94 to a high of 275 with the average being 192 minutes per week. This average reflects the scheduling of physical education on alternate days for forty-four per cent of the Class A schools. In Class B the range was from 137 to 290 for an average of 205 minutes per week. The Class BB schools averaged 212 minutes per week. This was due largely to one school that met for 450 minutes which was high for all classes. The lowest figure for all classes was also found in Class BB with but ninety minutes spent in the classroom per week.

In Class AA 82 per cent of the instructors taught no other classes. In Class A 66 per cent, Class B 22 per cent, and in Class BB only 16 per cent taught no other classes.

The results of this study show that altogether too many schools did not require medical examinations for physical education. Class AA was the unfortunate leader in this area with 82 per cent, 56 per cent in Class A, 35 per cent in

Class B, and 42 per cent of the Class BB schools did not require medical examinations.

Of the eighty-one schools reporting only twenty schools in all the classes combined had an established budget. Eight of these schools were Class AA, three in Class A, five in Class B, and four in Class BB.

A majority of physical education teachers were also involved in some aspect of coaching. The survey showed that 73 per cent of the Class AA, 66 per cent of the Class A, and 87 per cent of both Class B and BB had coaching duties.

In salary and experience Class AA led all other classes with an average salary of \$7,855 and 9.8 years. Class A averaged \$6,956 and 5.4 years, Class B \$6,895 and 7.0 years, Class BB \$6,374 and 4.2 years.

Seventy of the individuals indicated that they had majored in physical education. There were but two respondents that had neither a major or a minor and they were in Class BB.

Only eight of the eighty-one instructors held a masters degree in physical education.

The survey showed that 91 per cent of the schools in Class AA had a large gymnasium and 9 per cent had a medium gymnasium. In Class A the figures showed that 77 per cent had the large structure, 23 per cent the medium, and there were no small gymnasiums reported. In Class B 70 per cent had a large gymnasium, 26 per cent had medium, and 4 per cent had

a small facility. The figure dropped in Class BB to 50 per cent of the schools had a large structure. Thirty-nine per cent had the medium, and 11 per cent had the small gymnasium.

Only twenty-three of the eighty-one reporting schools had a multi-purpose room. Forty-five per cent for Class AA, 22 per cent for Class A, 34 per cent for Class B, and 17 per cent for the Class BB schools had a multi-purpose.

For outdoor classroom space Class AA had 64 per cent with large, 9 per cent had a medium, and 27 per cent indicated a small field. Class A had 55 per cent with a large field, 12 per cent the medium, and 33 per cent had a small space. The Class B schools had only 30 per cent with a large area, 48 per cent a medium, and 22 per cent the small field. In Class BB only 26 per cent had a large playfield, 61 per cent had a medium field, and 13 per cent had the small outdoor classroom area.

Sixty-six per cent of the Class AA schools, 88 per cent of the Class A, 70 per cent of the Class B, and 92 per cent of the Class BB schools used the athletic field for physical education.

Of the Class AA schools 18 per cent did not have tennis courts, 33 per cent of the Class A, 35 per cent of the Class B, and 60 per cent of the Class BB schools.

The only response to the size of the swimming pool was from three Class AA schools, one of which was large and the other two medium.

The average number of shower heads per school in each of the four classifications was as follows: Class AA 17.0, Class A 8.7, Class B 8.6 and Class BB 4.7.

Thirty-four of the schools reporting had a floor plan which included a badminton court. These thirty-four schools represented 66 per cent for Class AA, 33 per cent for Class A, 52 per cent for Class B, and 44 per cent for Class BB.

The average number of goals for Class AA was 7.3, for Class A 5.5, for Class B it was 4.5, and for Class BB there were 4.4.

One hundred per cent of the Class AA and A schools had volleyball standards. As compared to the 97 per cent of Class B and the 90 per cent for the Class BB schools that had volleyball standards.

The average number of mats per school for each class was: Class AA had 16.3, Class A had 8.3, Class B had 5.4, and Class BB had 5.6.

For Class AA there were 20 boys to a set of parallel bars, in Class A there were 28 to a set, in Class B it was 20 boys, and in Class BB there were 14.5 boys to each parallel bar.

The percentage of schools for each class that did not have climbing ropes was as follows: Class AA was 18 per cent, Class A was 11 per cent, Class B 35 per cent, and Class BB 45 per cent did not have climbing ropes.

In per cents for those schools having a vaulting horse Class AA had the greatest with 100, Class A with 77, Class B



with 30, and Class BB with 24.

Ninety-one per cent of the Class AA schools had a trampoline, as did 66 per cent of the Class A schools. This compared to the 48 and 31 per cent of the Class B and BB schools respectively.

Only two schools of the eighty-one that responded to the survey indicated that their school had stall bars.

There were six schools that reported traveling rings. This represented 27 per cent of the Class AA, 0 per cent of the Class A, 4 per cent of Class B, and 5 per cent of Class BB.

For the uneven parallel bars the per cents were: For Class AA, 64 per cent; Class A, 44 per cent; Class B, 22 per cent; and for Class BB it is 5 per cent.

Twenty-seven per cent of the Class AA schools had a beat board, 11 per cent of the Class A schools, 9 per cent of the Class B schools, and 3 per cent of the Class BB schools.

The above figures closely represent the percentages of schools in each classification having still rings. There were 27 per cent of the Class AA schools, 22 per cent in Class A, 9 per cent in Class B, and 3 per cent of the Class BB schools had the still rings.

The vaulting box was a piece of equipment not found in too many schools as only 18 per cent of the Class AA schools had them. The percentage then dropped to 0 in Class A, 13 per cent in Class B, and 5 per cent in Class BB.

The exercise bar was another item of equipment not found



in many schools. Eighteen per cent were found in the Class AA schools, 0 in both Class A and B, and 5 per cent of the Class BB schools had bars.

Table tennis tables were found in 82 per cent of the Class AA schools, 44 per cent of the Class A schools, 48 per cent of the Class B, and 66 per cent of the Class BB schools had at least one table.

In the Class AA schools only 9 per cent had tetherball standards, 0 in Class A, 22 per cent in Class B, and 34 per cent of the Class BB schools.

Only 27 per cent of the Class AA schools had shuffleboard courts, 55 per cent of the Class A schools, 30 per cent of the Class B schools, and 29 per cent of the Class BB schools.

The only piece of equipment written in by those responding to the questionnaire were three Class BB schools who indicated they had peg boards.

In Class AA 55 per cent of the schools offered a combination of weights and isometric exercises, 18 per cent weights only, 9 per cent isometrics only, and 9 per cent did not offer either of the two. The Class A schools had 44 per cent that offered the combination, 22 per cent had weights only, 11 per cent had an isometric program, 11 per cent used the Exergenie, and 11 per cent did not offer weights or isometrics. Seventeen per cent of the schools in Class B had a combination of weights and isometrics, 52 per cent had the weights, 9 per

cent had isometrics, and 21 per cent had neither. In Class BB 37 per cent of the schools had a combination of weights and isometrics, 21 per cent had weight lifting, 5 per cent had isometrics, 5 per cent used the Exergenie, and 21 per cent do not offer either of the two programs.

### CONCLUSIONS

Most of the physical education programs on the high school level were administered by one instructor for a required period of two semesters, which met generally for five times each week. The notable exception to this observation were the Class A schools which only met for an average of but 192 minutes per week. The number of boys to whom the program must be directed generally fell below thirty per class, except in some of the larger Class AA schools.

The physical education instructor, especially in the lower two classes of schools often taught other subjects. Since the great per cent of these instructors were physical education majors, the schools must necessarily be lowering their standards in other areas, if their preparation in these areas is inadequate.

It was evident that a great percentage of schools in the state of Kansas need to improve their policy concerning health examinations.

Many of the physical education instructors were also coaches and their pay was generally adequate, as the mean

salary for each of the classes was \$7,855 for Class AA, \$6,956 for Class A, \$6,895 for Class B, and \$6,374 for the Class BB schools.

The average experience in Class AA was 9.8 years; for Class A it was 5.4 years; Class B, 7.0 years; and in Class BB it was 4.2 years. Ten per cent of the individuals that answered the survey had a master's degree in Physical Education.

A large percentage of high schools had a large gymnasium, but few had a multi-purpose room. According to Williams and Brownell (3), most did not have an adequate space for the outdoor classroom.

Eighty-two per cent of the Class AA schools had at least one tennis court. The percentages of Class A, B, and BB that also reported at least one such facility was 67, 65, and 40 per cent respectively.

Regarding the question concerning swimming pools, it was somewhat amazing that only three Class AA schools indicated as having this facility. Evidently none of the other schools had a pool, or it would have been reported.

The Class AA schools, had more and better equipment for the inclusion of gymnastic activities in the physical education program.

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A STUDY TO DETERMINE THE STATUS OF PHYSICAL EDUCATION  
IN THE FOUR CLASSES OF HIGH SCHOOLS  
IN THE STATE OF KANSAS

by

RUTHERFORD B. HAYES III

A.B., Kansas Wesleyan University, 1960

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AN ABSTRACT OF A MASTER'S REPORT

submitted in partial fulfillment of the

requirements for the degree

MASTER OF SCIENCE

Department of Physical Education

KANSAS STATE UNIVERSITY  
Manhattan, Kansas

1969

The purpose of this study was to determine the status of physical education in the various classifications of schools in the state of Kansas and compare them by using items which could provide a basis for differentiation in the four classes.

A simple, short answer questionnaire was constructed to collect information pertaining to the size of school, general information, the facilities, and equipment.

A random sampling was taken which provided 25 per cent of the total number of schools in each of Class AA, A, B, BB. The percentage of return was 71. For each classification, this would amount to: 19.75, Class AA; 17.75, Class A; 18.25, Class B; and 17.75, Class BB Schools.

The study revealed most of the physical education programs on the high school level were administered by one instructor extended over a period of two semesters, which generally met five times a week. The notable exception to this observation was in the Class A schools which met for an average of only 192 minutes per week. The number of boys to whom the program was directed generally fell below 30 per class, except in some of the larger Class AA schools.

It is evident that a large percentage of schools (56 per cent) in the state of Kansas need to improve their policy concerning health examinations as this is considerably below the 100 per cent recommended by Williams and Brownell.

Many of the physical education instructors were also coaches. Their pay was generally adequate, as the mean salary

for each of the classes was \$7,855 for Class AA; \$6,956 for Class A; \$6,895 for Class B; and \$6,374 for the Class BB schools. The average experience in Class AA was 9.8 years. For the Class A, it was 5.4 years; Class B, 7.0 years; and in Class BB schools, 4.2 years. Ten per cent of the individuals who answered the survey had a Master's Degree in Physical Education.

A large percentage of high schools had a large gymnasium, but few had a multi-purpose room. And according to Williams and Brownell, most do not have an adequate space for the outdoor classroom area.

More schools had tennis courts than was expected, although 60 per cent of the Class BB schools were without this facility.

The one significant statistic that definitely stands out was the fact that only three Class AA schools in this group had swimming pools.

The Class AA schools, on the whole, had greater numbers and more types of equipment for the inclusion of gymnastic activities in the physical education program than did Classes A, B, and BB.