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A Study of the Ability of Kentucky High School Districts to Fulfill the Requirements of the Health & Physical Education Code

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1948

A STUDY OF THE ABILITY OF KENTUCKY HIGH SCHOOL DISTRICTS TO FULFILL
THE REQUIREMENTS OF THE HEALTH AND PHYSICAL EDUCATION CODE

6042

BY

WILLIAM H. SOLLEY

A THESIS
SUBMITTED IN PARTIAL FULFILLMENT
OF THE REQUIREMENTS FOR THE DEGREE
OF MASTER OF ARTS

WESTERN KENTUCKY STATE TEACHERS COLLEGE
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Approved:

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Health and Physical Education Law of 1920

"Be it here enacted by the general assembly of the Commonwealth of Kentucky:

1. The Kentucky State Board of Education shall prescribe a course of study in physical education for all common schools of the state, and shall fix the time when said course shall go into effect. This course shall occupy periods totaling not less than thirty minutes per school day which shall be devoted to instruction in health and safety, to physical exercise, and to recess play under proper supervision.

A manual setting out the details of said course of study shall be prepared by the Superintendent of Public Instruction in cooperation with the State Board of Health of Kentucky and such other expert advisers as he may choose. Said manual when published shall be sent by said State Board of Education to the teachers of the common schools in the state of Kentucky.

2. The curriculum of all State Normal Schools of Kentucky supported wholly or in part by public funds, having special courses adopted for the preparation of teachers, shall contain one or more courses in physical education, and after the first day of July, 1921, each person graduating from a teacher's course in any of these institutions shall have completed one or more courses in physical education.

3. County Boards of Education, Boards of Education of cities and graded common school districts may employ supervisors and special teachers of physical education in the same manner as other teachers are employed, providing they possess such qualifications as the State Board of Education may prescribe. Boards of education of two or more school districts, city, graded school, or county, may jointly employ a supervisor or special teacher of physical education. Boards of education may allow the use of school buildings and school grounds after regular school hours and during vacations as community centers for the promotion of play and other healthful forms of recreation, under such rules and regulations as to them may seem proper.*"

Approved March 22, 1920

*Jess B. Thomas, "Teacher Training in Physical Education in Four-Year Kentucky Colleges" (unpublished Master's thesis, Peabody College, 1933), p.8

Code for Health and Physical Education

1. Beginning not later than the opening of the 1948-49 school year, all Boards of Education of county and independent school districts shall, under the general direction of the Superintendent of Public Instruction, provide for medical examinations of each teacher upon employment and physical examinations every third year thereafter, and medical examinations of each child, in as far as local facilities and personnel are available, immediately prior to entering or upon entering school for the first time, and physical examinations at least every fourth year thereafter. Furthermore, Public School Boards shall, in as far as local facilities and personnel are available, provide physical examinations for any and all children and teachers at any time, who, in the opinion of the principal, superintendent, health or physical education teacher, supervisor, nurse, health officer or family doctor, should be given such examination. The Superintendent of Public Instruction is directed to request teacher education institutions to provide both medical and physical examinations for their teachers and students.
2. Beginning not later than the opening of the 1948-49 school year, each public school and each teacher education institution shall start cumulative health records for each child or student enrolled and/or entering school; said records to be maintained throughout the child's or student's attendance, after which they will be filed as part of the school's permanent record and be available for transfer. These health records shall be uniform and on forms prescribed by the Superintendent of Public Instruction. Health data shall be recorded and recommendations shall be sent to both the parents and county health committee or council if any exist; follow-up checks shall be made of each case by proper health or school authority and results recorded.
3. Beginning not later than the opening of the school year 1948-49, Health and Physical Education shall be included in each pupil's program of daily learning and living in the school. A specific course in basic health shall be required of each pupil in the upper four years of high school. This course should be taken preferably during the ninth or tenth year.
4. No elementary or high school shall be considered as having met health and physical education standards of approval until programs have been put into operation which meet the minimum standards prescribed by the State Board of Education as approved and

published in its specified bulletins, syllabi, and courses of study.*

Adopted December 12, 1947

*Material from the Kentucky State Department of Education

PREFACE

Statement of Problem: This investigation is intended to determine just how effective the compulsory Health and Physical Education Code, which is to go into force in every high school in the state of Kentucky at the beginning of the 1948-49 school year, will be, and to discover the actual conditions of these schools in regard to establishing or maintaining a program that will fulfill the requirements of the Code.

What Prompted the Study: The adoption of the Code December 12, 1947, caused a great deal of speculation as to whether many of the high schools of the state would be able to fulfill the requirements of said Code. This study has been made because the writer feels there is a dire need for health and physical education in every school in Kentucky, and if their shortcomings can be determined, then the school boards of the various districts can instigate corrective measures which will improve the program as a whole.

Method of Attack: A detailed questionnaire was mailed to every public school in the state through the offices of the county or independent district superintendents. Each of the questionnaires was signed by a competent member of the faculty in question. One hundred and sixty-seven of these were returned.

Scope of the Study: The map on the following page shows the geographic distribution of the schools whose superintendents and

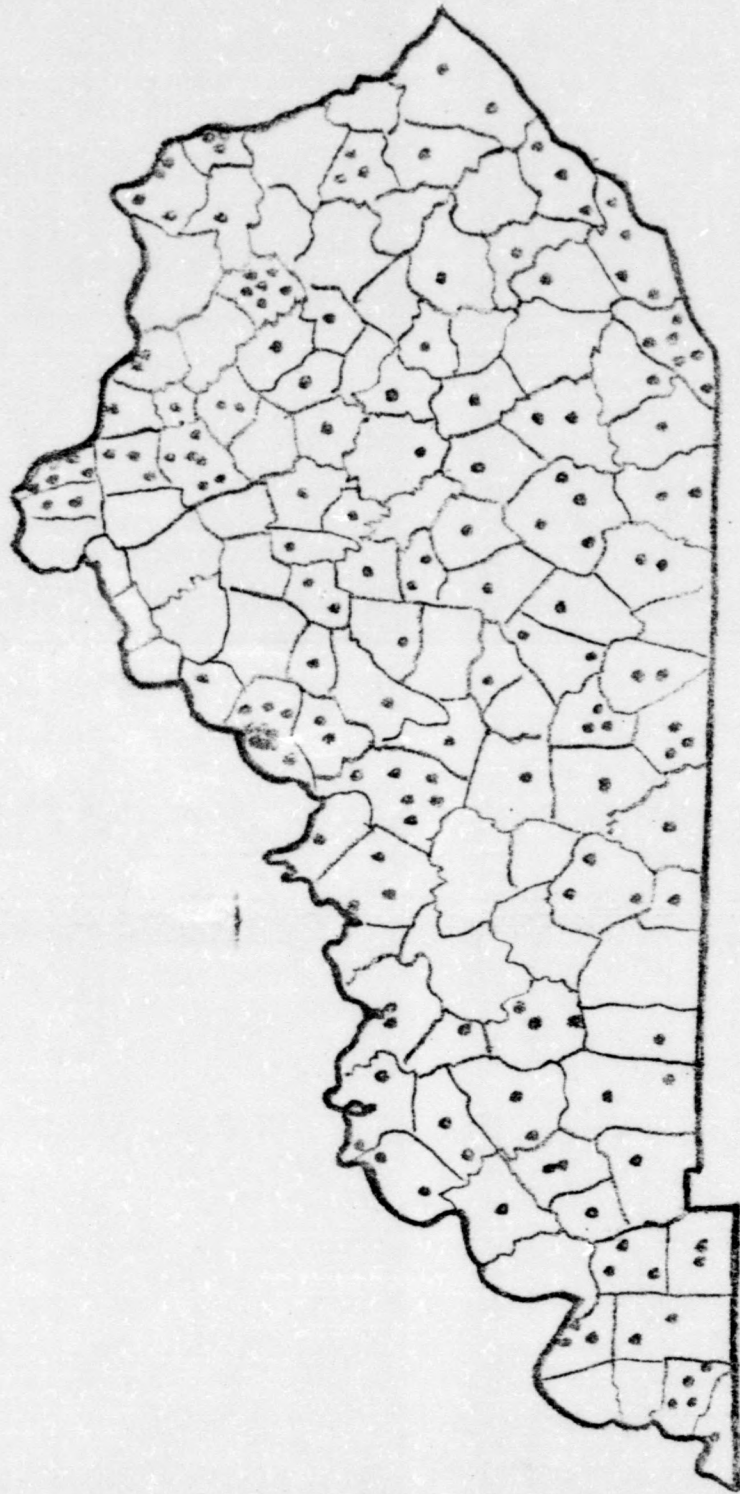


FIG. 1 - Distribution of the Schools Cooperating in this Study

principals responded to the author's request for information. Facts compiled from the answers given by the above officials concerning the programs of their respective schools form the basis of this study. The high schools cooperating range in enrollment from fifty-eight to one thousand four hundred and six students, and include seventy-two independent and ninety-five county school districts. These include twenty-five high schools with less than one hundred students, sixty-one with from one to two hundred students, thirty-three with from two to three hundred students, twenty-two with from three to four hundred students, eight schools with from four to five hundred students, and eighteen with from five hundred students upwards.

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Chapter I

The Essentials of High School Physical Education

Adequate finances are essential to any program, and without them no physical education program could operate with any efficiency. Certainly no school district would be in any position to inaugurate a program of value without considerable financial appropriations. Most of the other essentials of physical education depend upon finances for their existence. Trained leadership, adequate facilities, and adequate equipment depend directly on monetary factors. This study does not attempt to determine the financial condition of the various schools taking part, nor does it attempt to establish the amount of money needed to put the compulsory program into operation. The purpose is to determine what things are needed so the schools themselves can determine what finances are needed.

In order to find just what things are essential to a well-organized health and physical education program, the writer studied the requirements of Ohio, California, Louisiana, and New York. These programs were selected because they reputedly have outstanding programs in their respective sections of the country. By forming a list of requirements common to all four, we can arrive at a criterion for evaluating the various phases of the health and

physical education program in Kentucky.

Trained leadership is necessary in any program of value. Ohio, recognizing that fact, requires each teacher of physical education to have at least a minor in this field in an approved teacher training institution. An athletic coach is considered to be a physical education teacher and must have the same professional preparation.¹ California requires at least thirty-six quarter hours of college training in physical education before certification as a teacher of this subject.² New York stipulates that one who is to teach this subject must have fifty-four quarter hours of credit in physical education.³ It is evident that the need for professional preparation is recognized by these states to the extent that a major or minor in college physical education courses is required for certification. Kentucky teachers could well be required to have the same preparation.

Another must in a physical education program is an ample time allotment. The original law governing physical education,

¹Ohio High School Standards, Health, Physical Education, Recreation, and Safety, State Department of Education, Columbus, Ohio, pp. 66-7

²Newsletter, "State Legal Provisions in California Relating to Health Education, Physical Education, and Recreation", California State Department of Education, No. 37, p.3

³Certificates For Teaching Service, The University of the State of New York, Albany, New York, p.6

passed in 1920, set half an hour per day as the minimum time to be spent in health and physical education activities and in supervised play. The Code makes no definite time requirement, but says that physical education "shall be included in each pupil's program of daily learning". A combination of the two above requirements is not far removed from those of other states. Ohio requires participation from each pupil for at least two full periods per week.⁴ California says each pupil must engage in physical education classes one period per day.⁵ Louisiana recommends the same time allotment.⁶ In New York participation is required for five clock hours per week, two of which must be utilized for instruction.⁷ The program in Kentucky could operate very efficiently with one period per day of each student's daily schedule being devoted to physical education, and certainly a minimum of two periods per week should be devoted to this subject. Some states require or suggest intramural athletics and similar programs be added

⁴State Department of Education (Ohio), op. cit., p.48

⁵California State Department of Education, op. cit., p.5

⁶Material from Louisiana State Department of Education

⁷Regulations of the Commissioner of Education Governing Health and Physical Education, The University of the State of New York, pp. 11-12

to the physical education program, with time being given either from the regular school hours or during the afternoon or evening. In some schools such activities must necessarily take place during school hours if all students are to have an equal opportunity for participation. Recess play and supervised play periods could well be used for such purposes.

Some schools in Kentucky have had physical education programs of merit for several years. Yet in many more of the schools cooperating in this study the program will be inaugurated for the first time next year. In order for a state-wide program to be effective in all schools, it must have legal foundation, or authority from the laws of the state governing schools and their curriculums. The law of 1920 and the Code of 1947 give every school in the state the legal right to require every pupil in school to enroll in physical education classes.

Assuming a school has adequately trained leaders, ample time allotment, and the legal foundations for a physical education program, the only major essentials remaining are facilities and equipment. All schools should have a gymnasium, or a playroom large enough to accomodate its largest class, and a playground. Many physical education activities require the use of a playground, while still others are strictly activities of the indoor type. The four state which have been mentioned previously almost unanimously agree that a wide range of activities should be made

available to the student. None of them specify exactly what activities are to be taught in the high school program, but all recommend those which fall within the needs, interests, and ability of the individual student. All children are not primarily interested in athletic games, nor in dual activities, nor in any other one class of physical education activities. So equipment must necessarily depend on the activities chosen by the administrators to make up the program. Facilities likewise are dependent on the activities selected. Those schools which have had limited programs in the past and the schools which are launching programs for the first time next year should make every effort to provide sufficient equipment and facilities so the door to enjoyable, healthful physical education activities may be opened to every high school student in the state.

In summary, the Kentucky high school must have adequately trained personnel to direct the physical education program, must have enough time allotted to the program to give every student an opportunity for instruction and free play participation, must have the legal foundation to require participation, and must have enough facilities and equipment on hand to offer a wide variety of activities for the student. There are many less important essentials, but these large items will, according to requirements of other states, make or break our compulsory physical education program.

Chapter II

Physical Education Instructors

Probably no part of the physical education and health program is more essential to its success than that of adequately trained leaders, teachers who have been professionally prepared to cope with the many problems which might arise. Physical education is unlike the average high school subject in that much of the teaching must spring from the teacher's actual experiences. Demonstrations of the skills involved in various activities are a necessary part of the instructional period. Hence the instructor who has had no preparation would fail to pass on to the student many of the experiences which would aid in realizing the objectives of physical education. Just as a child's academic development should not be entrusted primarily to the layman who has had no professional teacher training, neither should his physical development be the responsibility of teachers who know little of the aims and objectives of physical education, of the capabilities and the limits of the human body, and of the teaching procedures which have proved to be most successful.

The preparation of physical education teachers in Kentucky high schools is far from ideal. When asked how many of these

teachers were employed by the school, the 167 schools covered in this survey reported a total of 158. Yet they reported only 139 teachers with a major or minor in physical education, and 22 of these were not teaching that subject. The difference might be explained by the fact that fifty-two schools listed their coach as the only physical education teacher even though he had no professional preparation in that field. This would be no problem in some states, Ohio for example, for the coach must have the same college training as is required of the teacher of physical education and health.

In the total number of teachers reported there were 98 majors and 41 minors. As might be expected, the smaller schools were found to have the least number, and the larger schools the greatest number. Those schools with less than 100 students averaged .16 physical education teachers per school. Schools with more than 500 students averaged 1.78 teachers per school. In the entire group of schools covered in this study, with an average enrollment per school of 269 students, there were .83 teachers per school on the average. Figures 2,3, and 4 on the following page graphically portray the number of teachers per school by enrollment groups.

In addition to the teachers reported as actually engaged in teaching physical education in the public schools of Kentucky in the 1947-48 school year, 28 schools announced their intention to hire 38 such teachers by next year, while ten schools were undecided.

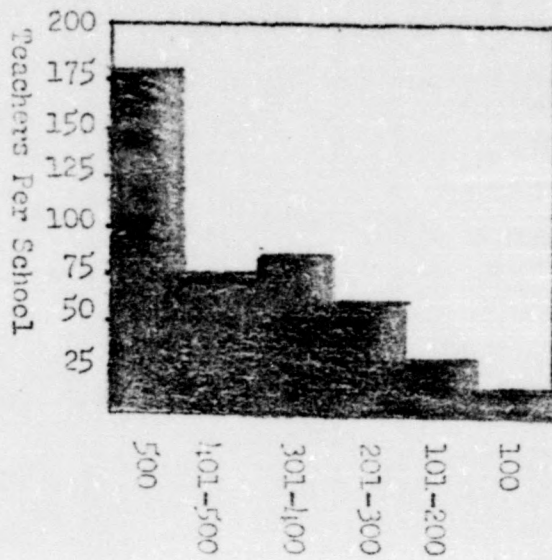


Fig. 2 - Average Number of Majors Per School

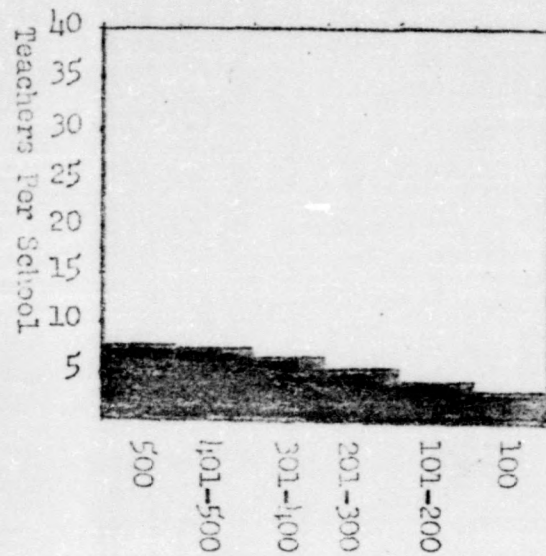


Fig. 3 - Minors Per School

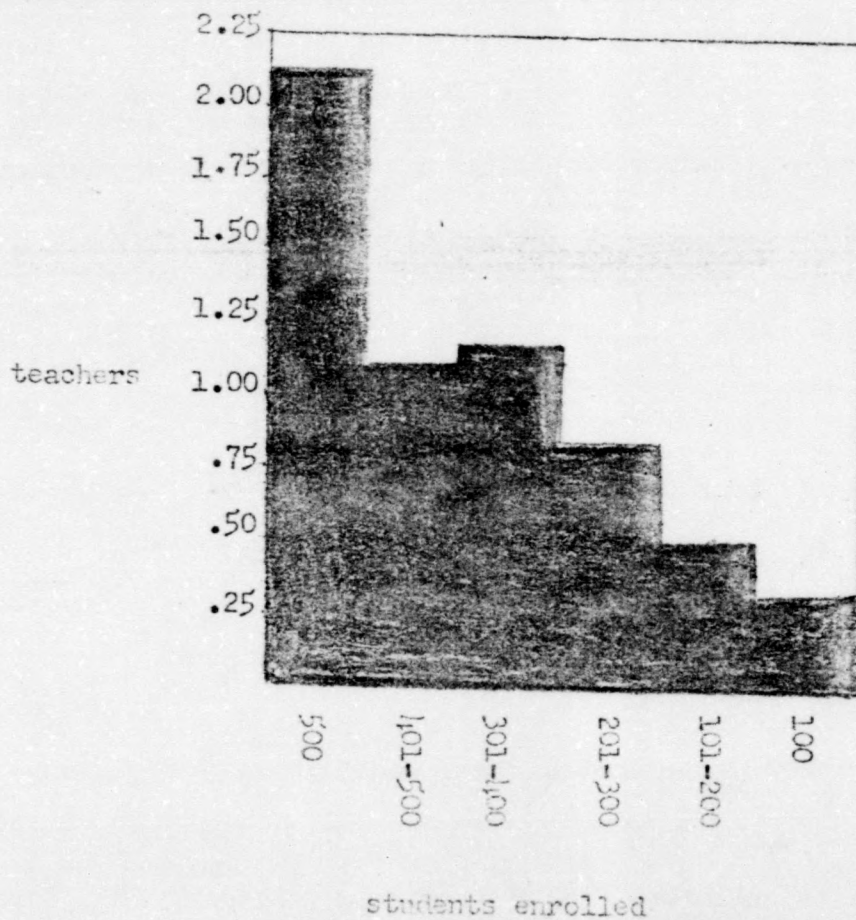


Fig. 4 - number of qualified teachers per school (average)

These added teachers would bring the average up to 1.06 teachers per school, with each teacher having 254 pupils. The code stipulates that each student enrolled shall participate in physical education activities. If this provision is to be carried out, each teacher would have an average of 42 students in each class, assuming there were six periods of physical education offered each day. What sounds like an adequate situation in theory is not necessarily a good situation in fact, for the average number of periods per school, as reported by school officials, is 2.23. Under such conditions, the physical education teacher would have 122 pupils per period. This is an impossible situation.

Although there once was a tendency for men to teach girl's classes, it is generally believed today that specially trained women teachers should handle the work for girls. This is made necessary by the nature of physical education activities.⁸ It is necessary to examine the situation as it exists for girls in the high schools of the state if we are to give adequate study to the various necessities of the compulsory program. Of the 158 physical education teachers reported, fifty were classified as instructors for girls, which means that girl students who comprise about half of the state high school enrollment have the misfortune of polling less than one-third of the teachers. Seven of the schools indicated

⁸Leslie W. Irwin, The Curriculum in Health and Physical Education (St. Louis: C. V. Mosby Co., 1944), p. 166

one teacher for both boys and girls. Physical education can be enjoyed by both sexes, and the same benefits may be derived. An effort should be made by the schools of the state to equalize the opportunities for both sexes.

Another problem connected with physical education teachers is combining the jobs of the athletic coach and the physical education teacher. Sixty-one percent of the total number of schools cooperating in the study indicated that their coach would be the only physical education teacher although over half of these coaches have had no special training in this field, and although it is recommended that a woman teach girl classes. Several dangers exist when the coach is the only physical education teacher. In many instances physical education will exist largely to develop material for the interscholastic program of athletics, to the neglect of many of the minor sports which could be of more benefit to the mass of students. Too, the coach is apt to neglect the weak, the underweight, and the poorly coordinated student in favor of those who have athletic possibilities. This practice would be very detrimental to any program of physical activities, for special attention should be given those who can profit most from the experience, not those who can derive a considerable benefit with little or no guidance and those who would receive sufficient exercise through the inter-scholastic athletic program. The author does not wish to leave the impression that all coaches, or even the average coach,

would neglect the basic aims of physical education if they have had proper training, but there is the danger that the coach will concentrate all or most of his efforts on developing boys for that part of the program which is used more than any other as the basis of evaluating his ability, namely athletics. Certainly the coach who has had no training in any phase of physical education other than athletics is apt to teach those things with which he is familiar. In many of the smaller schools the physical education teacher must necessarily be assigned duties other than those concerned with teaching his subject, and coaching probably would be one of these duties. This does not mean that the individual, regardless of his duties, should not have adequate professional preparation.

Upon examination of the averages of the various enrollment groups, we find the smaller schools with the smallest number of qualified teachers. Seventeen of the twenty-five schools in this group of less than one hundred students per school reported they had no teacher with a major or minor in physical education and that they would hire none next year. Twenty-eight of the sixty-one schools with from one to two hundred students, nine of the thirty-three schools with from two to three hundred students, five of the twenty-two schools with from three to four hundred students, two of the eight schools with from four to five hundred students, and one of the eighteen schools with more than five hundred students reported the same condition.

It would seem that the larger schools are in a more favorable position to carry out the requirements of the Health and Physical Education Code. This is not the case. From the standpoint of the number of pupils per teacher, which might affect the size of the classes, the smaller schools hold the advantage. Schools with fewer than 100 students averaged 235 pupils per teacher, from one to two hundred, 298 pupils, from two to three hundred, 294 pupils, from three to four hundred, 287 pupils, from four to five hundred, 396 pupils, and over five hundred, 385 pupils per teacher. In most cases the situation is improved considerably when considering the teachers which are to be hired by next year. The average number of pupils per teacher drops to a low of 188 in the schools with less than one hundred students, and ranges up to 359 in the schools with over five hundred students. Considering a six-period school day, the lower enrollment group would have thirty-one pupils per class, and the higher enrollment group would have fifty-nine students per class. The smaller schools would be in a more favorable position if the teachers were distributed equally among the schools.

How many teachers would it take to carry out the provisions of the Code? If each of the 45,007 students in the one hundred and sixty-seven schools contributing to this study were to participate in a physical education class each day, if there were to be an average of thirty pupils in each class, and if each teacher taught six periods per day, two hundred and fifty qualified teachers

would be needed. Since the schools with small enrollments have no need for six periods per day, the physical education teachers will necessarily have to teach other subjects. Therefore several more than two hundred and fifty teachers will be needed to provide the opportunity for every student in these schools to participate in physical education activities daily.

Chapter III

Time Allotment For Physical Education

Adequate time allotment is another essential of a well-administered physical education program. For the Code to be carried out to the letter, each school would be required to allot enough time to the program to give each student an opportunity to enroll in an instructional class. Since the Code definitely specifies that "health and physical education shall be included in each pupil's program of daily learning", the administrators of the state must come to the realization that these courses will probably consume more of the student's time in high school than any other subject, with the possible exception of two or three basic subjects.

In only a very few instances have the schools reported programs capable of offering the needed opportunities to the pupils enrolled. A total of 145 schools reported 223 physical education periods daily for boys and 151 for girls, a total of 374 periods. The average per day for these 145 schools was 2.58 periods. When asked the question "how many periods daily will you devote to physical education instruction next year?", 118 schools indicated that they would allot 475 periods, an average of 4.02 per school. In the hypothetical situation set up on pages 12 and 13, 1500

periods daily would be needed in all of the one hundred and sixty-seven schools taking part in this study. The average number of periods for the schools, according to enrollment, are listed in Table I which follows:

Table I
Average Periods Per Day Per School By Enrollment

	100	101-200	201-300	301-400	401-500	500 & up
1947-48	1.35	2.04	2.50	2.66	6.1	4.23
1948-49	2.33	3.63	4.32	3.88	7.29	4.82

As the table indicates, there is a continuous increase in the average periods planned for next year with the exception of the seven schools comprising the 401-500 students group. It would seem that these schools, by coincidence, have better than the time allotment that would be expected of schools of that size throughout the state, and therefore might not be considered as true representatives of their group. Figure 5 on the following page shows the actual number of periods compared to what might be called the ideal situation.

Considerably less time is allotted for girls than for boys. The program during this school year allowed 223 periods daily

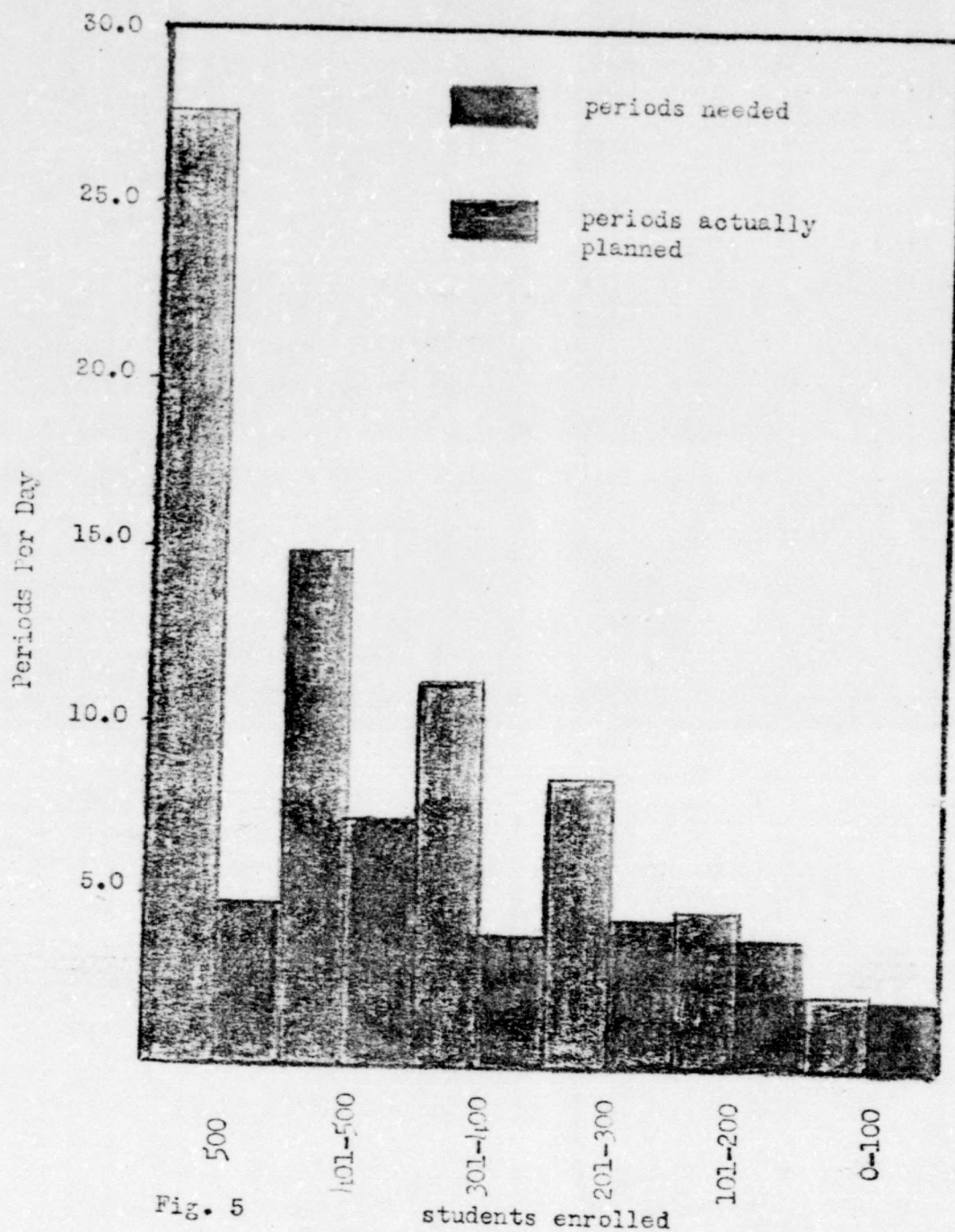


Fig. 5
students enrolled

A comparative study of periods of physical education actually planned for next year and the number of periods necessary in each school to assure an average size class of thirty pupils.

for boys and 151 for girls. Next year, 256 periods will be devoted to physical education for boys and 219 for girls according to information given by the school administrators. The difference in time allotment, plus the unequal number of teachers for the two sexes emphasizes the need for equalization of opportunity for both sexes. Figure 6 on page 16 compares the physical education periods for both this year and next year by the sexes.

Aside from the instructional period of physical education there should be other times devoted to free play and to supervised play periods when the student may enjoy using the skills learned in the instructional period. Such periods do not necessarily have to be sandwiched in the school day. Often it is more satisfactory for high schools to hold intramurals and other free-time participation in physical activity after school hours. However, the consolidated high school probably will find it necessary to devote a lunch hour or recess periods to such activities. The average time devoted to recess in the 167 schools was nineteen minutes per day, with the smaller schools devoting much more time than the larger ones. Supervised play averaged 29 minutes in each of the schools, and again the smaller schools reported the larger time allotment for such periods. In some cases the administrators evidently considered the physical education period as supervised play, and thus increased considerably the average time spent in supervised play. Free play and supervised play are an important

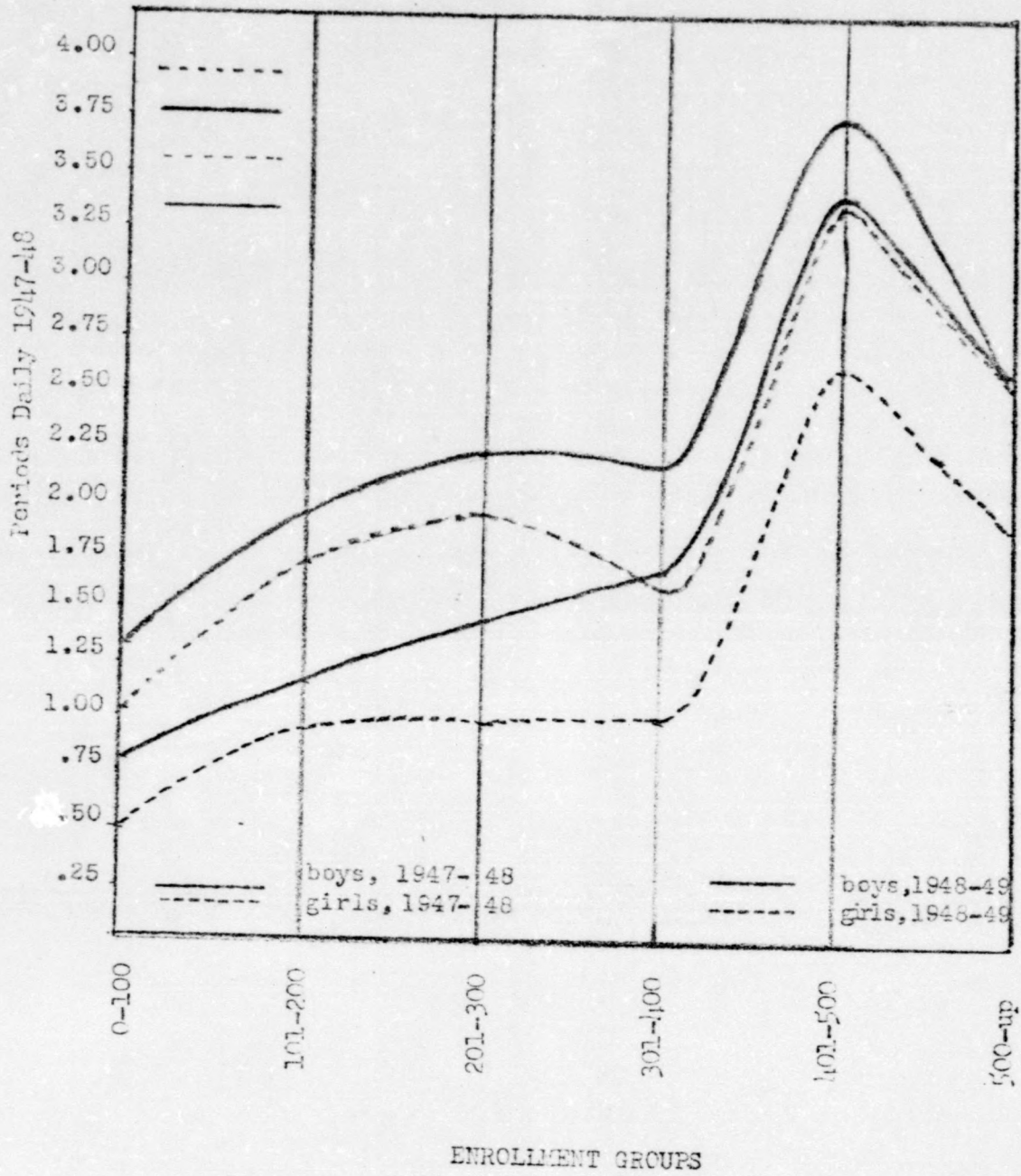


Fig. 6

Comparative study of physical education periods for boys and girls

— part of the physical education program, and certain steps should be taken to insure usage of equipment and facilities by the student at times other than regularly scheduled classes.

In some of the larger high schools with enrollments of approximately one thousand students, it would be impossible, or at least impractical, to expect the school to require every student to take physical education daily. If there were to be thirty pupils in each class, over thirty periods would be needed daily under such circumstances. This in turn would necessitate at least six instructors. The author poses the question of how these schools are going to follow the requirements of the Code.

In most of the schools of the state, physical education falls far short of being given the time allotment needed, although this requirement will be met in many cases if the school devotes six periods per day or less for each of the sexes.

Chapter IV

Physical Education Facilities

Part I

Gymnasiums and Associated Facilities

Adequate facilities are as important to the success of the Health and Physical Education Code in the State of Kentucky as are properly trained teachers and adequate time allotment. It is very difficult to establish exactly what is needed in the way of these facilities, but a minimum can be established by referring to the type of activities recommended by the states studied in Chapter I, and determining what equipment and facilities are needed in each.

A gymnasium or a play room is essential to any year-round physical education program. Most of the gymnasiums of this state have been built to accommodate the interscholastic athletic program, and naturally do not meet the needs of both this program and the physical education program which is to engross the entire student body of the school.

Fifteen schools, or nine percent, of the one hundred and sixty-seven schools cooperating do not have gymnasiums at all. These schools will have a difficult task in initiating a well-rounded program without the use of indoor facilities.

During the cold winter months and the rainy spring season it would be almost impossible to hold outdoor classes, and until these schools are provided with gymnasiums almost 10% of the entire group of schools cannot be expected to carry out the provisions of the Code.

The writer has not attempted to determine the degree to which the size of the gymnasiums will affect the program. Many factors must be taken into consideration in determining this question, and neither the space nor the time were available for such a study. The larger the gymnasium the more likely a wide variety of activities can be offered the student. It is assumed in this study that a gymnasium large enough to accommodate a basketball game is large enough to accommodate a physical education class.

The need for an ample supply of lockers, dressing rooms, and shower rooms is proportionate to the number of schools making dressing for physical education classes compulsory. It is generally agreed that when physical education becomes a complete period in length the student should be required to have a complete change of clothes in which to participate in physical education activities.⁹ Ordinarily simple uniforms are to be desired. The number of shower rooms, dressing rooms, and lockers now available for use in the

⁹Jesse F. Williams and Clifford L. Brownell, The Administration of Health and Physical Education, (Philadelphia and London: W. B. Saunders Co., 1946), p.267

school would naturally influence the administrator in determining whether the student is to dress for physical education next year or not. Eighty-eight school officials will require boys to dress, thirty-five indicated boys would not dress, and seven were in doubt. Seventy-six indicated girls would be required to dress in gym clothes, forty-six said they would not be required to dress, and six were in doubt. From these figures one can see that less than fifty percent of the one hundred and sixty-seven schools will make dressing for the physical education class in clothes other than street clothes mandatory. Therefore, less than half of the schools will have need for showers and lockers to accommodate the physical education program.

Health education and physical education may be very closely associated if adequate shower facilities are available. "Properly constructed and wisely administered shower rooms provide one of the best laboratories for inculcating certain health practices of personal cleanliness while youth enjoys the cleansing and invigorating properties of the bath. By unanimous agreement the shower bath after exercise constitutes and integral part of the physical education period."¹⁰

A total of 341 shower rooms were reported by 150 schools, with each school averaging 2.28 of these rooms. This would seem,

¹⁰Ibid, p. 279

reserving one room for boys and one for girls, that bathing facilities are adequate. This is not the case, for administrators designated 65% of the shower rooms as those for boys, leaving 35% for girls. Table II, which follows, shows the average number of shower rooms in each school for the two sexes according to enrollment groups.

Table II

Average Number of Showers Per School By Sex and Enrollment

S T U D E N T S E N R O L L E D

Sex	0-100	101-200	201-300	301-400	401-500	501-up
Boys	1.38	1.25	1.57	1.90	1.57	1.47
Girls	.67	.52	.61	1.16	2.00	1.06

In the entire group of schools, each school averaged 1.49 shower rooms for boys and .79 shower rooms for girls. As the table indicates there is no appreciable difference between the various enrollment groups except between the girls in schools with fewer than three hundred students and those of more than that. The schools in the lower enrollment groups are in a more favorable position, since they have a smaller number of students who will use about the same number of shower rooms. Each group of schools averages about two shower rooms per school, and from this standpoint might

be considered in a fair position in regard to such facilities.

Many of the schools covered in this survey are not in any position to offer bathing facilities to all their students. Thirteen of this group reported no showers at all for boys and sixty-five showed the same condition for girls. This means that 52% of the reporting schools cannot require bathing after physical exercise of both sexes, nor can they provide the facilities to allow those who desire to bath to do so. How can we possibly teach cleanliness of body and proper habits associated with it if we do not have the facilities in which to bathe?

The boys in the state are fairly well supplied with facilities in which to dress. One hundred and fifty schools reported a total of 220 dressing rooms for boys, an average of 1.47 per school, and 105 dressing rooms for girls, an average of .70 per school. Four schools have no dressing rooms for boys and fifty-four have none for girls. As far as these facilities are concerned the small schools are in about the same condition as are the larger schools. Table III on page 25 shows the number of dressing rooms per school both by the sex and by enrollment groups.

As the table indicates, all the schools have about two dressing rooms each on the average. Each school could have one dressing room each for boys and girls if there were no conflict with inter-scholastic athletics.

Table III

Average Number of Dressing Rooms Per School
by Sex and Enrollment

Sex	STUDENTS ENROLLED						Total
	0-100	101-200	201-300	301-400	401-500	500	
Boys	1.94	1.38	1.41	1.53	1.57	1.60	1.47
Girls	.83	.56	.69	.84	1.00	.93	.70
Total	2.77	1.94	2.10	2.37	2.57	2.53	2.17

Fifty-nine schools reported one shower room for boys and one for girls, and fifty-seven schools reported one dressing room for each. A very serious problem results from such a condition. Ordinarily, dressing rooms are used for locker rooms, and those schools with two or less rooms of this sort will necessarily be forced to require both those in physical education classes and those in the interscholastic athletic program to use the same facilities. The possible inconveniences of double usage are evident, especially when girls' locker rooms must be used by visiting athletic teams. Certainly the ideal situation would be the provision of separate dressing rooms for varsity athletics. Many of the girls' dressing rooms in the state were designed as rooms for visiting athletic clubs and necessity has forced them into double usage—both for physical education students and visiting athletes.

Very few of the high schools cooperating in this study have enough facilities of this sort to avoid use by more than one group. Fourteen percent of the schools have a total of four or more dressing rooms. Sixteen, or 15%, of the schools reported three dressing rooms. In this situation the boys' dressing room may be used by both the athletic clubs and the physical education classes, while the girls' classes and the visiting ball teams have separate rooms. Seventy-one percent of the schools have only two or less dressing rooms, and it is in these schools that the most serious problems of double usage will be evident. Although arrangements have been made for combatting this problem in many of the high schools of the state for many years, the most satisfactory system would be separate showers, locker rooms, and dressing rooms for boys' and girls' physical education classes and athletics.

If students engaging in the physical activities of the program are to be required to dress, then the school must have adequate locker service for each student. Modern health and physical education programs emphasize the importance of sanitary and well-equipped locker facilities as well as adequate gymnasiums and playgrounds.¹¹ This study is concerned with the number of lockers in the possession of the schools and not the type used. However, care should be taken to insure some type of locker service that will

¹¹Ibid, p. 267

not only protect the valuables and street clothes of the student while participating in physical education activities, but will allow the uniforms to dry before they are used again.

One hundred and thirty-six schools answered the questions asked about lockers with definite responses, while eight more schools gave such answers as "one room", "racks", or "plenty". There is a definite increase in the average number of lockers per school as the enrollment increases. Table IV compares the average number of lockers per school by enrollment groups, by sexes, and by total averages.

Table IV

Average Number of Lockers Per School
By Sex And Enrollment

Sex	S T U D E N T S E N R O L L E D						Total
	0-100	101-200	201-300	301-400	401-500	500	
Boys	10	23	22	39	51	98	33
Girls	4	11	14	32	37	50	19
Total	14	34	36	71	88	148	52

The smaller schools have a very small number of lockers while the larger schools have considerably more but still not enough to provide more than a small percentage of the student body with an

individual locker.

Six schools, or 4%, indicated that enough lockers were on hand to accommodate every student in school. Fourteen, or 10% of the other schools showed they had enough lockers to accommodate over half of their students with an individual locker. Assuming the eight schools which gave indefinite answers do have a sufficient number of lockers, then 18% of the schools can supply at least half of their students with lockers in which to store gym clothes. If almost half of the students are to be required to dress, as administrators have indicated, then some provision must be made to enable each of these students to store his clothes without worry of loss.

A desirable location for the lockers would be in a room adjacent to the shower room. When asked if their lockers were in the gymnasium, only forty-nine of the one hundred and thirty-six schools answered in the affirmative. Needless waste of time will necessarily result from having the storage place located too far from the activity area, and time lost in going to and from the dressing and locker rooms must necessarily come from the physical education period. About one-third of an hour period will be lost in dressing and bathing under normal circumstances, and certainly no more time losses should be added unless absolutely necessary.

Part II

Playgrounds and Associated Facilities

Another must in a physical education program of value is an adequate playground, with enough permanent facilities installed to insure a variety of activities for the student. The playground is becoming increasingly important in the administration of an adequate physical education program. "Almost without exception, administrators recommend outdoor recreation areas for physical education classes unless inclement weather forces the students inside."¹² The fresh air and sunshine found outside cannot be equaled as a healthy environment.

Jay B. Nash, in his Administration of Physical Education, recommends a minimum of ten acres for senior high schools regardless of enrollment.¹³ Jesse F. Williams increases that minimum to ten acres plus one acre for each two hundred students enrolled.¹⁴ In round figures, ten or twelve acres are needed in the high school playground, excluding buildings, football stadiums and similar structures.

One hundred and fifty-seven schools reported a total of

¹²Ibid, p. 306

¹³Jay B. Nash, The Administration of Physical Education (A. S. Barnes and Co., 1936), p. 306

¹⁴Williams, op. cit., p. 307

700 acres of playgrounds, an average of four and one-half acres per school. (The average for the entire group of schools was increased considerably by one school with one hundred acres in its playground.) The average playground size per school by enrollment groups is shown in Table V.

Table V
Average Playground Size Per School

<u>Enrollment</u>	<u>Size of playground</u>
0-100 students	2.6 acres per school
101-200 "	5.7 " " "
201-300 "	4.2 " " "
301-400 "	4.8 " " "
401-500 "	5.1 " " "
500 upwards	2.6 " " "

The smallest and the largest schools seem to have the smallest playgrounds. As can be seen from Table V, none of the various enrollment groups come close to meeting the requirements set up by two of the foremost physical educators in the country. Eighteen of the one hundred and fifty-seven schools reporting do meet such a requirement. Thirteen more of the schools have at least five acres of recreational play areas. Eighty-one schools have two

or less acres in each playground and nineteen have less than one acre. There are many reasons why the minimum of ten acres has been established. Not the least important of these reasons is the need for permanent play areas which is discussed in Chapter V, Part I. Before Kentucky high schools can provide an outstanding program of activities for the students, more land must be acquired which can be converted into play areas.

Even though most of the high schools of the state have playgrounds that are too small to meet the needs of their students, one hundred and twenty of one hundred and forty reporting schools share their playground with the elementary school. Although this is one of the less serious problems in the administration of the program, it should be considered seriously. The schedule should not be arranged in such a way that both groups are on the playground at the same time. Since the activities that are engaged in by students on these two educational levels are different, they cannot engage in activities as one group. Therefore there would have to be two separate areas for the two groups to use. Permanent facilities and play areas should be installed for each group. In short, the already too-small playgrounds necessarily will have to be divided into still smaller play areas in 86% of the schools. Again the need for larger playgrounds in the high schools of the state is evident.

School facilities are being used considerably by the community

in many of the schools covered in this survey. "Public school playgrounds are an essential part not only of physical education but of community playground and recreation activities."¹⁵ A large percentage of school officials in Kentucky realize this fact. Eighty-eight of one hundred and thirty-two schools indicated that their playgrounds are being used in a recreation program outside of school hours. Many of these schools provide a trained leader for playground supervision during the summer months. Others allow the use of their playground in a community-wide recreation program. Since most schools have facilities and equipment that cannot be provided by the community in which the school is located, and since the school buildings and playgrounds are, in a sense, the property of the taxpayers of the community, it is fitting and proper that these items shall be made available to the citizens of the community when they are not in use by the students. It is gratifying that more than half of the schools covered in this survey allow the use of their playground in a recreation program.

¹⁵Ibid, p. 306

Chapter V

Permanent Play Areas and Equipment

The number of permanent play areas and the amount and type of equipment needed by each school depends on the program of activities planned. The program should contain a wide range of activities so as to give the pupil the opportunity to engage in at least some activities to his liking. All the large divisions of physical education activities should be represented in the program if possible. Table VI on the following page gives the large classes of activities of this type and a few of the individual games and activities that are found in each group.

The Code fails to stipulate what activities or what groups of activities are necessary to a well-organized high school physical education program, although the Health and Physical Education Law of 1920 directed the State Board of Education to prescribe such a course of study. The evaluation of equipment and permanent play areas would be comparatively simple if this material were available. In the absence of such data, the activities recommended for the schools in the four states in Chapter I are used as a criterion. The activities in Table VI, therefore, are examples of what activities should be included in the Kentucky Physical Education Program. It is not necessary for each school

Table VI
Physical Education Activities

<u>Class of activity</u>	<u>Individual games and activities in each group</u>
Preparatory activities	walking, running, leaping, galloping, jumping, calisthenics, dual type or combatives
Mass activities	games of low organization and relay games
Athletic games	baseball, softball, basketball, field hockey, football, touch football, soccer, speedball, track, volleyball
Self-testing activities	stunts, tumbling, and apparatus (rope climbing, chinning, etc.)
Rhythmics and dance	folk dancing, clog dancing, tap dancing, social dancing, modern dancing
Individual and dual sports	archery, badminton, handball, horseshoes, paddle tennis, shuffleboards, table tennis, tennis
Aquatics	swimming, diving, life saving

¹⁶Ohio High School Standards, "Health, Physical Education, Recreation, and Safety", State Department of Education, Columbus, Ohio, pp. 40-50

to have enough equipment on hand to provide an opportunity for participation in all the activities listed in Table VI, but the schools with the widest variety of activities, everything else being equal, will have the more outstanding program. Every student should have the chance to engage in all forms of physical education, to engage in the type of activities that is popular to him.

Part I. Play Areas

The permanent play areas reported by school officials cooperating in this investigation are not numerous enough to meet the needs of the pupils enrolled in the various schools. If softball, horseshoes, volleyball, and baseball provided sufficient activities, then these schools would be in a fair position to install an adequate playground program. However, these activities are only a few of the many that should be made available to the student.

Table VII on the following page shows the average number of play areas installed permanently on the playground of each school. By averages, not a single item in the table is found on every playground represented in this survey. Practically all emphasis is placed on permanent play areas which provide opportunity for participation in athletic games.

Twelve of the 167 schools investigated have no outdoor play areas of any sort. Thirteen schools have only one area. Thirty-

Table VII

Permanent Play Areas In the Average
School By Enrollment Groups

Permanent play areas	Students Enrolled						Totals
	0-100	101-200	201-300	301-400	401-500	500-up	
Outdoor basketball cts.	.83	.89	.89	.88	.88	.33	.80
tennis courts	.33	.54	.55	.55	1.00	.40	.52
handball courts	.03	.05	0	.23	.38	.40	.11
volleyball courts	.57	.65	.28	1.00	1.63	1.07	.80
soccerfields	0	.07	.06	.18	.13	.33	.10
archery lanes	0	0	.06	.05	0	0	.02
track	.17	.20	.10	.27	.25	.66	.22
speedball diamonds	0	.07	0	0	.13	.07	.04
baseball diamonds	.50	.62	.41	.59	.50	.73	.60
softball diamonds	.73	.95	.74	.91	.88	1.60	.92
horseshoe courts	.63	.31	.51	.59	.63	.87	.68
swimming pool	0	0	.03	.05	0	.07	.03

one schools have two, thirty-eight schools have three, and twenty-four schools have four permanently installed facilities of this type. Judging from play areas in each school, softball is by far the most popular activity. It is evident that athletic games have been the backbone, if not the body, of past physical education programs in Kentucky.

The writer has not attempted to determine how many or which of the various play areas should be installed on the playground. However, in view of the requirements of the Code every school should make an effort to provide those facilities that will enable the student to participate in a wide variety of activities. Not all students are more interested in engaging in athletics than in other forms of physical education. Every school should seriously consider adding tennis courts, archery lanes, and other such facilities with the thought in mind of providing opportunity for participation to all.¹⁷

Part II. Physical Education Equipment

To determine the degree to which equipment now in the hands of the physical education teachers of the schools in this study will aid in providing an adequate program, the present supply of

¹⁷Leslie W. Irwin, The Curriculum in Health and Physical Education (St. Louis: C. V. Mosby Co., 1944), p. 162

equipment may be compared with the activities suggested for the program in Table VI.

Preparatory activities and mass activities require little or no equipment and therefore require no discussion here. Every school in the state can add these activities to the physical education program without financial worries over equipment.

Athletic games have been, and from all indications, will be the backbone of the Kentucky high school physical education program. Athletics generally carries its own drive, and therefore is the most easily taught phase of physical education from the standpoint of pupil interest. "To the degree that social conduct is the concern of public education, the athletic field serves admirably as a laboratory for the teaching of ideals concerned with personal respect and group consciousness."¹⁸ Therefore, athletics should be one of the most important types of physical education activities incorporated in the program.

Table VIII on the following page shows the averages of various athletic equipment items in each school, both by enrollment groups and by the total of all the schools represented in this study. As can be seen, athletic equipment is far more plentiful than any other class of items. Softball, baseball, volleyball, and football

¹⁸Williams and Brownell, op. cit., p.331

Table VIII

Average Amount of Equipment, By The Item, In each School
According to Enrollment Groups And By Totals

Item of Equipment	ENROLLMENTS						Average of all schools
	0-100 students	101-200 students	201-300 students	301-400 students	401-500 students	500 students	
Athletic Equipment:							
Softballs	6.00	2.97	6.03	7.73	8.38	13.20	6.75
Softball bats	5.00	2.38	4.84	6.86	6.88	10.93	6.19
Baseballs	4.27	2.10	3.32	9.88	14.50	1.20	5.33
Footballs	1.33	.66	3.06	4.18	5.00	6.93	2.62
Volleyballs	.88	.46	2.16	2.86	2.98	5.07	2.33
Soccer balls	.10	.05	.26	.68	1.75	5.93	.54
Jumping standards	.17	.08	.36	.86	1.00	2.00	.49
Shot	.13	.07	.32	.50	1.50	.40	.30
Hockey sticks	0	0	0	.63	.13	0	.21
Hockey balls	0	0	0	.23	0	0	.04
Individual & dual sports:							
Horseshoe sets	1.17	.57	1.42	1.26	4.50	1.00	.78
Table Tennis sets	.55	.17	.65	1.14	1.50	.80	.77
Tennis racquets	.20	.10	.58	1.45	1.00	1.30	.63
Shuffleboard sets	.13	.07	1.03	.75	.38	1.20	.57
Badminton sets	.20	.10	.36	1.26	1.00	.87	.47
Archery sets	0	0	.51	.91	3.00	0	.38
Dart sets	.23	.11	.32	.14	0	.20	.21
Handballs	0	0	.16	.32	3.00	1.27	.40
Gymnastics, stunts and apparatus:							
Mats	.90	.44	1.64	2.50	4.38	5.13	1.86
Horizontal bars	.13	.07	.19	.27	.38	.33	.27
Rhythmic and dance:							
Phonographs	.53	.26	1.10	1.26	.50	.60	.73
Miscellaneous equipment:							
Whistles	2.30	1.13	2.94	5.55	7.25	3.33	3.62
Stop watches	.83	.41	.97	1.59	1.00	1.47	1.18
Gymnastics, games of low organization:							
Beanbags	.03	.02	0	1.62	0	0	.09

are the most popular games if the amount of equipment on hand is any indicator. For actual game competition, the over-all average shows enough equipment to accomodate a class of thirty pupils in each of the above sports. A physical education program is not made up entirely of games, however. It should contain instruction in the fundamental skills involved in a wide variety of activities, athletics included. Much more equipment will be needed for practicing the individual skills than will be required in actual game competition.

Using softball as an example, a hypothetical case may be established which will show how important adequate equipment is to the success of the instructional program. The teacher is instructing the class in the various throws involved in softball. No better means could be devised than to break the class up into pairs, with the two students in each pair facing each other at a distance of about twenty feet. Each pair is given one softball to throw back and forth practicing the various throws. The teacher goes from one person to another giving individual instruction. In such a class, fifteen softballs would be needed in a class of thirty students. If one ball were available for each four students, the efficiency of the instruction would be lessened because the student would have only half the practice. Certainly ten or fifteen students per ball would render this type of instruction almost useless. The same lack of efficiency in the teaching of

skills would result from a shortage of equipment in other sports. Certainly game contests are not omitted in a good physical education program, for it is there that the student practices the skills learned in the drills of the instructional period, but a large part of the instructional period should be used to develop the fundamental skills of a variety of activities.

By referring to Table VIII one can readily see that it will be a difficult task to teach the individual skills of athletic games because of lack of equipment. Assuming most classes will be made up of thirty pupils, and there is every reason to believe they will have more, there will be one softball to five people on the average, one baseball for every six students, one football for every twelve students, one volleyball for each thirteen students, one soccer ball for each thirty-six students, one handball for each group of seventy-five students, and one hockey ball for every seven hundred and fifty students. Only softball and baseball skills can be taught with any efficiency with the present amount of equipment.

A large number of schools are in no position to teach athletics in the physical education program next year. Sixteen percent of the total number of schools covered in this survey indicated that they had no softballs, twenty-six percent had no volleyballs, forty-three percent had no baseballs, fifty-six percent had no footballs, eighty-six percent had no soccer balls, ninety percent

had no handballs, and ninety-seven percent had no hockey balls. These averages show the inability of many of the high schools of this state to administer athletic activities for all students, even though there is more equipment on hand for athletics than for any other group of physical education activities.

Self-testing activities, which include stunts, tumbling, and apparatus, are a very important part of any physical education program. Most of the equipment needed for these activities is more or less permanent; that is, it lasts for a much longer period of time than do such items as balls and bats. Most of the activities that come under this heading are of the indoor type. A complete survey of the equipment in this group could not be made, but enough of the essential items were included to determine the trend in teaching these items. In many self-testing activities mats are the only items of equipment needed. In the entire group of schools covered in this study the average number of mats per school was 1.86. The small schools again had the lowest number per school and the larger schools were again the wealthiest. The writer feels that a class of thirty students would need at least four mats for many of the activities that are called self-testing. Seventy-three schools out of the one hundred and sixty-seven schools reporting have no mats at all, and fifty-five more have less than three. These schools, which constitute 73% of the total number, are in no position to offer tumbling and stunts in their program,

if the number of mats owned by the schools are any indication. Each school averages 27 horizontal bars. This would indicate that by averages each four schools would have one horizontal bar. Yet all the bars were located in 17% of the schools. Again the amount of self-testing equipment on hand seems to point out that the schools have done little in regard to offering this class of physical education activities to their students.

Rhythmics and dance are probably as important to the development of skill, coordination, and social grace as are any other physical education activities. Many leaders in physical education have, for a number of years, advocated the need for more and more coeducational activities.¹⁹ Dancing is among the few activities in which both sexes can compete with equal opportunity for success, and thus becomes one of the most important coeducational features of the physical education program. Yet public opinion must be overcome before the various forms of dancing can become an integral part of the physical education program in the state of Kentucky.

In answer to the question, "Does your community allow social dancing?", 42% of the one hundred and thirty-five replying schools indicated it did. 73% of one hundred and forty-five schools indicated that folk dancing was allowed in the school. One of the

¹⁹Irwin, op. cit., p. 164

most important barriers to the physical education program as a whole, and dancing in particular, is the lack of interest and knowledge of the lay public regarding the values of physical education activities.

The only large item of equipment necessary for an adequate rhythmic and dance program in the high school is a phonograph, and if a talented student is on hand to play the piano, even this item of equipment is not necessary. In the entire group of schools represented in this study, there is an average of .73 phonographs per school, although about half of the schools reported none. There will be many students who will derive more pleasure and benefits from dancing than from any other activities, and for this reason the author believes that these activities should become a part of the activity program.

Individual and dual sports are rich in value, especially recreation value which remains with the individual into adult life. These activities, such as tennis, horseshoes, suffleboard, and similar games, are of the utmost importance in any physical education program, especially to those students who for one reason or another derive more pleasure and receive more benefit from them than from any other group of physical education activities.

As table VIII indicates, the schools in this study have failed to give this group of activities the same emphasis that has been given to athletics. These schools have a comparatively small

amount of equipment on hand that can be used in individual and dual sports. Not a single item of this type was reported in as many as half of the one hundred and sixty-seven schools. This accentuates the shortage of equipment for individual and dual activities, for in practically all of these, several sets of equipment would be necessary in order to teach them in the instructional period. Four tennis racquets are needed for a doubles game, and only sixteen schools of the group have that many or more. It would be difficult to determine how many table tennis sets and suffleboard sets would be needed in each school for space would be the determining factor. All schools could have one set of each. Badminton would require the same number of racquets as would tennis for one game of doubles. Yet there is but one badminton set to each two schools, on the average. The table on page 46 shows the number of schools who reported at least one of the item listed.

Table VIII and Table IX show that it will be difficult to add individual and dual sports to the physical education program unless additional equipment is provided to most schools.

SUMMARY

The high schools in Kentucky must be provided with additional equipment for the use of the student and teacher in the instructional phase of the physical education program if the Health and Physical Education Code is to operate with efficiency. As for

Table IX

The Percentage of Schools Reporting Equipment Item

Item of equipment	% of schools reporting at least one item
Horseshoe sets	46%
Table tennis sets	40%
Tennis racquets	13%
Shuffleboard sets	28%
Badminton sets	24%
Dart sets	19%

athletic equipment, only three games, softball, baseball, and volleyball, could be played in half of the schools surveyed. (Since most of the high schools in the state compete in the interscholastic athletic program, the author assumes that practically every high school in the state has at least a few basketballs.) In only a small percentage of these schools reporting equipment in the above sports can an adequate instructional program in the fundamental skills be initiated without additional equipment. Seventy-three percent of the schools have less than three mats and eight-three percent have no horizontal bars,

indicating that self-testing activities might not be taught next year unless additional equipment is made available. Fifty-eight percent of the schools reporting indicate social dancing cannot be taught because of community prejudices, and 27% cannot teach folk dancing for the same reason. Almost half of the schools have no phonograph. Unless the school is fortunate in having several talented pianists, these schools cannot offer rhythmic and dance. Not a single item of individual and dual activities was reported to be in possession of more than half of the schools, and three of the six items were not found in over 75% of them. So additional equipment of this type is necessary before a vast majority of the schools can offer this class of physical education activities. Aquatics could form a very important part of the program if a swimming pool were at the disposal of the school. However, only two percent of the total number of schools reported such facilities. Thus this group of activities must be forgotten by the average high school of Kentucky.

The amount of equipment on hand during the 1947-48 school year is no guarantee of the amount that will be in the possession of the school next year. Much of the material used in the physical education program is expendable, and the schools might add considerably to their supplies before the next school year. It is the writer's opinion that unless appropriations for physical education are increased substantially, the figures presented in

this chapter will be indicative of those that will be on hand next year. If nothing else has been accomplished in this chapter, the data has given an idea of what has been taught in the physical education program in the 1947-48 school year, and possibly acts as a preview of what will be taught next year.

Chapter VI

Health Examinations

There has been serious doubt among educators of the state as to whether the part of the Code dealing with compulsory medical examinations for teachers and pupils at certain intervals can be put into operation by the public schools of Kentucky. Be that as it may, the school children and teachers will be the center of the greatest physical fitness program in the history of the state beginning in September, 1946.

There is little controversy over the benefits that could be derived from such a program. The improvement of the health of the student will increase the efficiency of teaching, to say nothing of the improvement of the health of society in general in the state. In many abnormalities early discovery is necessary so corrective procedures may be put into operation before it is too late. Posture abnormalities, certain abnormalities of the eyes, tuberculosis, and heart disease are a few examples. Much misery, including educational misery, can be saved by diagnosing and correcting weaknesses in the health of the school child. Thus the medical examination upon entering school for the first time, and a check-up each third year thereafter would not only benefit the student and the school in which he is enrolled, but would be

a great service to society in general.

Forty-six of the one hundred and sixty-seven schools cooperating in this study indicated they required health examinations of their students. A large percentage of these examinations were given at school by a school nurse or the county health nurse or doctor. No effort was made by the writer to determine what type of examination was given, and hence this gives us little indication as to how these health examinations will aid in the inauguration of the state-wide program.

At a meeting of superintendents, principals, and teachers of the second congressional district, called by Mr. E. B. Whalin of the State Department of Education, most of the administrators present expressed doubt that the school district alone could bear the cost of the proposed health program. In addition, several county health doctors emphasized the fact that their departments were grossly understaffed, that many counties had too few doctors to meet the normal needs of the population, and therefore could not be expected to bear the additional load of medical examinations for school children. The shortage of medical personnel and the lack of adequate finances will have a harmful effect on the operation of the health program.

School authorities of the first congressional district raised the following objections to the health provisions of the

Code.²⁰

1. School Boards eventually may have to finance the entire program on their already limited funds.
2. Maintenance of the permanent health records will require too much time of school authorities.
3. The code will not be effective until provisions are made to remedy physical defects discovered through the examinations.
4. The teaching of health and physical education courses may require additional teaching personnel.

All the objections seem to root from a shortage of funds with which to administer the program.

In speaking of the compulsory medical examination a recent Courier-Journal article estimated the cost of such an examination at thirty-five dollars.²¹ At this rate, a school with one hundred entering students would be required to pay three thousand and five hundred dollars for medical examinations for one year alone. Few school districts of this size can afford these additional expenses on their present appropriations. Financial condition of the school district, then, is one of the main determiners of success in the health as well as the physical education phase of the program.

²⁰ Harry Bolser, The Courier-Journal, Louisville, Ky., "First District Group Ratifies Health-Physical Program", Feb. 12, 1948, Section II, p. 1

²¹ The Courier-Journal, Louisville, Ky., "School Officials Lay New Health Code", March 12, 1948, Section II, p. 5

The state has not specified exactly what steps are to be followed in the administration of the health program. The only specification is that a medical examination be given to the first grade youngsters who are entering school for the first time next fall. Since each school has the right to form its own policies in regard to financing the program, giving the examinations, and following with corrective measures for those who need them, it was very difficult for the author to make a thorough study of the problems relating to the health phase of the program. This phase of the Health and Physical Education Code is in need of further investigation.

Chapter VII

Summary

Before an adequate health and physical education program can be inaugurated in the state of Kentucky, many of the factors contributing to the failure of an adequate program must be removed or corrected. If there is to be a compulsory program, there should be an outstanding program which will benefit all the students who participate in it, and indirectly all of the society of which the school is a part. The foregoing chapters have pointed out many of the conditions that must be remedied before the state-wide program can be termed a success.

Less than half the high schools covered in this study are in a position to offer a good physical education class from the standpoint of trained teachers. Some of the school officials indicated they could not employ these instructors because of the high salaries they would have to pay. Regardless of the reasons, many of the pupils of the state will not receive adequate leadership in physical activities next year due to the shortage of teachers with college preparation in physical education and health.

A comparison between the time allotted to physical education during the 1947-48 school year and the proposed allotment for the 1948-49 school year shows emphatically that the schools officials

are not allowing the time asked for in the Code, but are moving slowly toward fulfillment of this requirement. Next year only a small percentage of the students represented in this study will be able to make physical education a part of their daily school life; yet there will be a greater percentage participating next year than there was last year.

The large facilities needed in the program are found in most schools, but the smaller facilities are not adequate. The shower rooms, dressing rooms, and lockers do not give every student the opportunity to dress in gym clothes during activity nor to bathe afterwards. The permanent play areas located on the playgrounds are far too few to assure each student a type of activity to his liking. The playground is far below the minimum size as recommended by leading physical educators. Considerable improvement in facilities must be in evidence before an adequate physical education program can be established.

Equipment poses another obstacle in the way of those who would see the provisions of the Code carried out. Only athletic equipment for two or three games is found in most of the high schools covered in this study, and it is in such small quantities that instruction in the fundamental skills involved would be impractical. Efforts should be made to provide a much wider variety of activities in the physical education program, which would make additional equipment necessary. There seems to be a willingness on the part

of school administrators to cooperate in that part of the Code governing health examinations, although most of them are dubious about how the program can be inaugurated on funds available to the school.

In every essential investigated, there is an inequality between the facilities, equipment, time allotment, and teachers provided for boys and for girls. This difference is so great that the author feels a special effort should be made to give the girls of the high school the same opportunity to participate in the program as is given the boys.

The conditions are such, on the eve of the inauguration of the compulsory physical education program, that the author makes the following recommendations to those whose task it is to supervise and administer the program:

1. that a course of study in physical education be written and distributed to each public school in the state by the State Department of Education.
2. that appropriations for physical education be increased so that the essentials of the program can be within the reach of each high school.
3. that appropriations for physical education come directly from school funds, and not be dependent on the financial success of the interscholastic program in any way.

4. that, through a well-planned improvement program, each school, by the 1953-54 school year, shall have:
 - a. enough adequately trained teachers to meet the needs of the pupils enrolled.
 - b. enough facilities and equipment to offer each pupil enrolled an opportunity to participate in physical activities that fulfill the needs, capacities, and interests of the students.
 - c. adequate time allotted to physical education to make physical education a part of the daily program of activities for each student. (This need shall be fulfilled only after the above have been evidenced).
5. that the State Department of Education, in cooperation with the teacher training institutions of the state of Kentucky, initiate means of acquainting every superintendent of the state, and every principal and teacher in every public school in the state with the aims of the compulsory physical education program, and with the needs, objectives, and probable outcomes of such a program.
6. that a wide publicity campaign be initiated that will acquaint the public with the physical education program, and will attempt to increase their interest to the point where the securing of adequate finances will be an easy task.
7. that until such time as a school has met the minimum requirements of the Code no credit shall be given for physical education.
8. that each school be given the financial assistance to enable all pupils to have medical examinations when they are needed, and to institute corrective measures when needed.

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