THE NEED FOR A COMPREHENSIVE PHYSICAL EDUCATION PROGRAM
AND PROPOSED PLAN FOR MARIETTA, OKLAHOMA
PUBLIC SCHOOLS

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THE NEED FOR A COMPREHENSIVE PHYSICAL EDUCATION PROGRAM
AND PROPOSED PLAN FOR MARIETTA, OKLAHOMA
PUBLIC SCHOOLS

THESIS

Presented to the Graduate Council of the North Texas
State College in Partial Fulfillment
Of the Requirements

For the Degree of

MASTER OF SCIENCE

By

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Marietta, Oklahoma
January, 1950
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CHAPTER I

INTRODUCTION

Statement of Problem

The problem of this study is to show the need for a comprehensive physical education program for the Public Schools of Marietta, Oklahoma, and a proposed plan of improvement.

Purpose of the Study

The purpose of this study is not only to show the need of a comprehensive physical education program but to submit a proposed plan to fulfill the need and correlating this plan of improvement with the traditional subject-matter type of school curriculum. This plan of improvement uses the modern trend of interacting and experiencing of the individual with their environment for individual pupil growth as applied to health.

Limitations of the Study

This study will have the geographical limits of Marietta School District Number Sixteen, containing seventy-four and one-fourth square miles and the population therein, and those pupils transferred to the district, with emphasis on the school children. The public schools of this district have enrolled
four hundred ninety-three pupils of which one hundred seventy-eight are rural bus pupils. The school is staffed by a superintendent, a high school principal, an elementary principal, eleven high school and junior high school teachers, nine elementary teachers, one custodian, three bus drivers and three lunchroom employees. The school is a member of the North Central Association of Secondary Schools.

Source of Data

Data for this study were taken from surveys made of the health of the students, containing their health histories, physical fitness, a series of screening tests, and the personal observations of the author. Other material was obtained from the following sources: The United States Department of Education, the National Education Association of the United States, the Department of Rural Education, the American Association for Health, Physical Education and Recreation, the Texas State Department of Health, the Oklahoma State Department of Health, the Texas State Department of Education, textbooks, books on health, and various magazines, bulletins, pamphlets and other materials pertaining to the physical education field. The Health Education Workshop conducted on the campus of North Texas State College furnished many ideas for this study. The lectures of numerous health experts heard there were a valuable asset and an incentive to the author.
Method of Procedure

A uniform, practical method of procedure has been attempted. The present physical education program, the facilities, and plan of improvement are given in Chapter II. Chapter III gives the results of surveys and screening tests given to determine the physical condition of the pupils in the Marietta Public School. The final chapter summarizes the study and gives the conclusions gained from the research.

Criteria for Establishing a Physical Education Program

The American Association for Health, Physical Education and Recreation, the Department of Rural Education, and the National Education Association has realized the need of all children and youth for a safe, sanitary and healthful school environment. These three groups recommend an effective program for protection from disease and conditions which interfere with proper growth and development and for a program which will help them how to live healthfully. The teachers of this program should be equipped by training, temperament, and health, not only to give specific instruction but also to help children to mature socially and emotionally. The following criteria is recommended by these three groups for establishing this program:

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1Health, Physical Education and Recreation in Small Schools, The National Education Association of the United States, p. 28.
I. The School Health Program

1. Health service which provides for health examinations, appraisal, screening, and follow-up to assure correction of remediable disabilities and to prevent emotional difficulties; health records; communicable disease control; health conservation; and health guidance.

2. Healthful school environment which includes general building arrangements, maintenance, sanitation, safety, heating, ventilation, water supply, toilet and waste disposal facilities; hand washing facilities, lighting, interior decoration, seating, screening of windows and doors; food handling facilities, playground, gymnasium, play room, and shower facilities.

3. Healthful school living which includes good pupil, teacher-pupil, teacher-pupil-administrator, and school-community relationships; a balanced program of work, physical activities, relaxation, rest and recreation; a school lunch program and other things which affect the well being of those who live together during school hours.

4. Health instruction which is concerned not only with the teaching of scientific facts but also with improving the quality of living. Instruction is successful only when it influences health practices along desirable lines without undue conscious effort on the part of the individual.

II. The Physical Education Program

1. Objectives. Physical education is concerned largely with the growth and development of children through the medium of total body activities. Briefly stated, the principal objectives are:

a) The protection and improvement of health

b) The development of motor skills and motor fitness

c) The development of desirable social attitudes and standards of conduct


3Ibid., pp. 43-46.
d) The development of an appreciation and love for a wide range of physical activities which will result in continued participation in wholesome and enjoyable leisure pursuits.

2. The Recommended Physical Education Program

a) Every child should be given a complete health examination periodically.

b) The program of physical education should be based on the needs, interests, and capacities of the particular children in a particular school.

c) There should be a daily program of physical education for every child exclusive of recess.

d) The program should be progressive.

e) All the activities should be conducted in a safe and healthful environment.

f) The program should be all-round and includes:

For early elementary children (grades 1-3) -- dancing, games, relays, stunts and self-testing activities.

For middle grades (grades 4-6) -- games of low organization, sport techniques, team games, dancing, relays, stunts and self-testing activities, tumbling, pyramids and apparatus.

For upper grades -- junior high school, (grades 7-9) -- sport techniques, individual and team sports, apparatus, dancing, relays, track and field events, tumbling, pyramids, self-testing activities and stunts. Intramural competition for all who are able to participate.

For senior high school -- individual and team sports, dancing, stunts and self-testing activities, tumbling, pyramids, apparatus, relays, track--intramural for
all, varsity competition for boys, swimming
and other aquatics for all grades whenever
possible.

III. Facilities

1. Playground. Whenever possible, a portion of
the playground should be converted into an all-weather
play area. The playground should be clean of all rubbish,
trash, and weeds. It should be smooth, and inspected
periodically for rocks, stones, glass and other rubbish,
poison ivy and other poisonous growths, snakes, holes
and stubble. If the ground is sloping, it should be
graded. If it is located near busy highways, fences
should be erected. All playground equipment should be
kept clean, oiled, and in the best of repair. It should
be inspected at frequent intervals to make sure that it
is safe to use. The playground should be divided into
three parts, consisting of the following areas:

a) Apparatus Area -- 4 seesaws, 2 slides,
8 swings, climbing structure, and 2 sand
boxes.

b) Court Games Area -- The surface should be
level and rolled and courts laid out for
basketball, volley-ball, horseshoe pits
and other games.

c) Field Games Area -- This should be of
sufficient size to play softball, and
other field games.

2. Equipment. The following equipment is essential
for carrying on a good physical education program:

4 Volleyballs
4 Soccer balls
4 Basketballs
4 Volleyball size rubber balls
4 6-inch rubber balls
4 Sponge rubber balls
4 Playground balls
4 Playground bats
12 Bean bags
12 Indian clubs

4Tbid., pp. 49-50, and 52.
8 Deck tennis (tenniquoit) rings
8 Whistles (for the teacher and student
referees)
6 Long jump ropes and 20 short (individual)
ropes
4 Nets for volleyball and other net games
4 Basketball back stops and goals
4 Standards for volleyball and other net games
4 Sets of horseshoes and stakes
1 Inflator
1 Limner and lime for marking field
4 Footballs

Other equipment if available may be utilized
such as tennis, croquet, table tennis, and badminton,
etc.
CHAPTER II

PRESENT PROGRAM, FACILITIES, AND PLAN OF IMPROVEMENT

The Present School Health Program and
Plan of Improvement to Meet the Requirements
of the Established Criteria

Health Service

Health examinations are required in the junior and
senior high schools for those students who participate in
competitive athletics. There are no other health examina-
tions given or required. This is the only health service
offered by the school and only on a limited basis.

To meet the requirements of the criteria, the following
program is proposed:

A thorough physical examination for each pupil and all
school employees shall be given annually by a physician with
a complete appraisal of each so that remediable defects may
be corrected.¹ Further screening tests should be given by
each home-room teacher for the purpose of locating those who
need further examination by specialists, to detect communi-
cable diseases, and to use the results as a basis in giving
health guidance and teaching health conservation. Screening

¹Jesse Feiring Williams, and Clifford Lee Brownell,
The Administration of Health and Physical Education, p. 115.
tests which may be administered by the teacher relate to height, weight, posture, skin, scalp, vision, hearing, teeth and speech. The teacher should not make a final diagnostic statement but inform the parents that the child needs a more complete examination.  

A system of health records for each pupil should be established and contain the results of the physical examination. Data from their environment, from the disease history, from the scholastic record, from the adjustment record, from the social record and from health practices should be recorded.  

Healthful School Environment

The classroom building of the Marietta Public School is in a U shape. The elementary school is located in one wing and the high school in the opposite wing with the junior high classrooms in between. The classrooms are of sufficient size, each having a cloak room and large unscreened windows. Each room has an independent heating unit, and adjustable window shades to regulate the light. The walls of the room are painted with the paint designed to diffuse and not reflect light. The seats are fastened to the floor at right angles with the windows. The playground, gymnasium, shower facilities, rest rooms and  

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classrooms are kept thoroughly clean and sanitary by two custodians.

The food handling in the lunch room is carried on under the direction of the Home Economics teacher, and is carefully supervised to assure cleanliness, wholesome food, and sufficient time for eating and attractive surroundings.

There are three drinking fountains having four spouts each. These fountains are the bubbler type so constructed that the lips of the drinker cannot touch the bubbler. There are two boys rest rooms each of which contain four stools, one urinal, and two lavatories. There are two girls rest rooms each containing five stools and two lavatories. To meet the requirements of the criteria, the following improvements are recommended:

The windows should be screened and the classroom seats should be loosened from the floor so that they may be moved to a forty-five degree angle with the windows.

Facilities for hand washing should be available to all students eating in the lunch room.

Healthful School Living

There exists in the Marietta Public Schools a situation of healthful living among the pupils, pupils and teachers, the teacher-pupil-administrator, and the school community. With the exception of the physical education program there is a balanced program of work, relaxation, rest and recreation, and in general, all things which affect the well being of
those who live together during school hours. Therefore, in respect to the established criteria pertaining to healthful school living, the program does not need improving except for those improvements recommended in the health service and school environment phases of the health program.

Health Instruction

The present health instruction program consists of subject matter teaching fifteen minutes per day in the first three grades, thirty to forty minutes per day in the next three grades, thirty to forty minutes per day in the junior high school, and fifteen minutes per day for the girls in high school. None is taught the high school boys exclusive of those participating in the athletic program.

In the present curriculum the teaching is concerned merely with teaching scientific facts, and is a very poor type of instruction method. Health teaching is not confined to a health class. All phases of the curriculum have health implications; therefore, health instruction should be integrated in the curriculum along with planned specific teaching. Health instruction should be primarily concerned with helping the student live most healthfully each day in helping to understand the importance and necessity of improving health services, health environment, and health practices in the home, the school, the community, the state, and the Nation.  

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The Present Physical Education Program and
Plan of Improvement to Meet the Requirements
of the Established Criteria

Present Program

The present physical education program is confined to
the junior high school. This consists of two two-hour periods
per week, from 8:30 until 10:30 for the girls, and three
two-hour periods at the same time for the boys, in the gym-
nasium or at the athletic field, and under the supervision of
the athletic director of the school. Intramural sports and
seasonal activities are participated in by both sexes. Calis-
thenics, games and folk dancing are taught in these classes,
along with personal hygiene, health and safety. The ninth
grade boys and girls are eligible to participate on the high-
school athletic teams. Ten of the junior high school boys
participated in football and basketball with the highschool
teams. None of the girls participated on the highschool
teams. A boys’ and girls’ basketball team is formed and com-
petes with other schools.

The junior high school boys basketball team competed in
twenty-one games and the girls in eight.

Plan of Improvement

To meet the objectives of the established criteria the
following recommendations should be met:5

5Ibid., p. 44.
1. Each student should be given a physical examination annually.

2. There should be a daily program for physical education for every student exclusive of recess, under the proper supervision of a teacher.

3. The program of physical education activities should be flexible so as to meet the needs, interests, and capacities of particular groups of students.

4. The program should be progressive; that is, the work each day, each week, each year is built upon what has gone before. As the students develop skill, they should participate in more highly organized and more advanced activities. As their interests change, so should their physical education activities.

5. All activities should be conducted in a safe and healthful environment. The playground, gymnasium, and buildings should be maintained in such a manner to insure hygienic environment and promote the training of safety.

6. The following physical education activities are recommended to satisfy the objectives and established criteria.

The Elementary School, Grades 1 to 3

Rhythmical Activities.—These activities for children of the primary grades form an important part of the physical education program. They give the child training in such qualities as self-control, poise, creative development, fundamental activities such as running, skipping and jumping and dramatization. These activities should include singing games and folk dances.

Games.—Games provide the opportunity for social development, and give the teacher an opportunity to gain some idea of the ability of the students concerning fundamental activities

such as catching, throwing, running and jumping. The children are usually advanced sufficiently to wish to measure their own ability in the fundamentals such as running for speed, throwing for distance, throwing for accuracy, jumping, and many other activities of a similar kind. The games chosen should give ample opportunity for them to participate as a group. This should be done to give practice in making certain social adjustments in relation to the group. The child must learn to cooperate with others in making and maintaining circles, acting in squads, selecting captains and leaders, and waiting turns. 7

Relays.—The majority of the children in the first grade are not ready for relays, as the relay demands greater skills and a higher level of group cooperation and teamwork than simple games. Beginning with the second grade, the pupils are usually ready for the introduction of some of the simple relay races. In the third grade, the more difficult of relays of low organization should be taught employing the fundamentals of higher organized athletic games. 8

Stunts and Self-Testing Activities.—These should be simple and relatively easy to execute. The teaching of stunts and self-testing activities should be on an informal basis. Stunts and self-testing activities are usually popular with the pupils, and they are easily adapted to group teaching for the following reasons:

7Ibid., p. 82.
8Ibid., p. 87.
1. They lend themselves readily to group organization.
2. They are easily organized for practice.
3. They may be conducted with a minimum space and equipment.
4. They are easily adapted to varying age groups and level of ability within groups.

**Time Allotment for Each Activity, Grades 1 to 3.**—Table 1 gives the approximate percentage of time to be allotted to the various activities when possible.

**TABLE 1**

**PERCENTAGE ALLOTMENT OF TIME FOR ACTIVITIES**
**IN PROGRAM FOR GRADES 1, 2 and 3**

<table>
<thead>
<tr>
<th>Activity</th>
<th>Per Cent in Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Rhythmic Activities</td>
<td>35</td>
</tr>
<tr>
<td>Games</td>
<td>40</td>
</tr>
<tr>
<td>Relays</td>
<td>0</td>
</tr>
<tr>
<td>Stunts and Self-Testing Activities</td>
<td>25</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>100</td>
</tr>
</tbody>
</table>

The Elementary Grades 4 to 6

**Games of Low Organization.**—Games of low organization are quickly learned, and have a special appeal to the students. Practically all children like the variety attached to simple organized games. Imagination and initiative should be

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encouraged in presenting games to children. It is desirable to encourage the children to invent games of their own. In cases where pupils do invent new games, they should be permitted to present them to the group.\textsuperscript{10}

**Sport Techniques.**—As the children grow and progress in their activities, there will be a definite interest by them in athletic games. Sport techniques may be taught them by various games of the highly organized sport in modified form.

**Team Games.**—Team games in modified form should be taught with the season. In other words, modified forms of football games should be taught in the fall, snow games and basketball in winter, tract, baseball and softball in the spring.

**Dancing.**—The folk dances used should be of slightly higher organized form than those taught at the primary level. Social dancing should be taught because highly desirable results may be obtained at this level with boys and girls participating together.

**Relays.**—The relays should be of a more advanced type than those offered in the first three grades, yet the progression should not be too exacting in view of the fact that more highly organized relays will be participated in by the children in developing skills of sport.\textsuperscript{11}

**Stunts and Self-Testing Activities.**—Stunts and self-

\textsuperscript{10}Ibid., p. 113.

\textsuperscript{11}Ibid., p. 115.
testing activities are a form of play and recreation arising from the desire to test individual ability. At this particu-
lar grade level, it is usually desirable to introduce the
spirit of competition into stunts and self-testing activities.
However, it should be kept in mind that they are primarily for
self-competition rather than for competition with others.\textsuperscript{12}

\textbf{Tumbling, Pyramids, and Apparatus.---}This type of activity
will aid greatly in the development of motor skills and motor
fitness and should be taught with an approach to teaching
fundamentals only. The apparatus will aid in developing arm
strength as well as strength of the entire body.

\textbf{Time Allotment for Each Activity, Grades 4 to 6.---}Table 2
gives the approximate percentage of the time to be allotted to
the various activities when possible.

\begin{table}
\centering
\caption{Percentage Allotment of Time for Activities
in Program for Grades 4, 5 and 6}
\begin{tabular}{lrrr}
\hline
Activity & Per Cent in Grade \hline
 & 4 & 5 & 6 \\
Games of Low Organization & 20 & 15 & 15 \\
Sport Techniques & 5 & 5 & 5 \\
Team Games & 20 & 25 & 30 \\
Dancing & 10 & 10 & 10 \\
Relays & 10 & 10 & 10 \\
Stunts and Self-Testing Activities & 20 & 20 & 15 \\
Tumbling, Pyramids and Apparatus & 15 & 15 & 15 \\
\hline
Total & 100 & 100 & 100 \\
\end{tabular}
\end{table}

\textsuperscript{12}\textit{Tbid.}, p. 122.
The Junior High School, Grades 7 to 9

The present program of activities in the junior high school meet the requirements of the established criteria; therefore, no plan of improvement of the activities is needed.

The Senior High School

**Individual and Team Sports.**--The more highly organized individual and team sports on a seasonal basis form the background of physical education in the senior high school. The following sports are recommended for use at the secondary school level:13

Baseball. The facilities, space, and equipment are available and each boy in high school should be permitted to participate in baseball.

Basketball. The popularity of basketball among boys often makes the sport difficult to conduct without overemphasis. There is a tendency for boys to want to play the game during all of the physical education class period. This should not be permitted and emphasis should be placed on the teaching of fundamentals. The teacher also should place emphasis on the proper application of the fundamentals in game situations.

Basketball can be played safely by girls of high school age if proper precautions are taken. Girls should adhere to the rules of basketball especially prepared for them.

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13Ibid., p. 169.
Boxing. This is one of the rugged contact sports, and should have a place in most programs. Many boys who will rank low in the skills of team sports may excel in boxing. It is a sport through which courage is rapidly developed. Too much emphasis cannot be placed upon the need for close and proper supervision.

Field Ball. The fundamentals of this sport employ basketball and soccer techniques. This game is desirable for boys also but is primarily a sport for girls.

Soccer. This game is a suitable sport for both boys and girls, particularly during the autumn season. Soccer has come to be more popular with girls than boys since the introduction of football.

Speedball. Speedball is another autumn sport suitable for either boys or girls. Most teachers consider speedball a superior game for use in developing the fundamentals of other sports. It is based on soccer, fieldball, and basketball.

Softball. Much emphasis should be placed on this sport for both boys and girls because the equipment is inexpensive, the place needed is not so large and the game has a high carry-over value.

Touch Football. This sport should be taught to boys only. It is a highly desirable sport in that the game may be played on a small playground, vacant lots, or any smooth area, and the only equipment needed is a football. It has a high carry-over value after graduation from high school.
Volleyball. Volleyball is a winter season sport for both boys and girls and should be taught very thoroughly as this is a game requiring highly developed teamwork. If there is not a high degree of team play, the game is relatively slow and uninteresting. The carry-over value of volleyball is sufficient to recommend that all students in the high school to develop enough skill to insure interest in continued participation.

Tennis. This is one of the best all-around individual sports and should be a part of the physical education program. If tennis courts are lacking, the important fundamentals of the game can be taught in the gymnasium by utilizing the walls to teach serving and the form and various strokes. As there are several private tennis courts available in the community, this sport should be a part of the program.

Recreational Sports. A wide range of recreational sports should be offered not only because of their individual nature alone, but to fulfill the recreational objectives and carry-over value in adult life. Some of the recreational activities should be offered at the high school level are: archery, badminton, deck tennis, horseshoes, shuffleboard, table tennis, and other social games.

Dancing. Both folk and modern dancing should be taught in high school. Dancing has high value toward the development of desirable social attitudes and standards of conduct, recreation, and carry-over value into adult life.
Stunts and Self-testing Activities. There should be a progression of this activity from the elementary grades through high school. As in the previous grade levels the skill, ability, and experience of the student should determine the selection of stunts and self-testing activities. In high school these should be taught also with an incentive for each student to increase his own ability, and not to compare his ability with others.

- Tumbling, Pyramids and Apparatus. Tumbling activities for the high school girls should be carefully selected as some of the more difficult stunts may be harmful to girls. The program of tumbling for boys may contain any of the stunts considered within the range of ability of boys of high school age. Pyramids may be added with profit for the girls and in some cases for boys. The apparatus provides opportunity for physical development of strength for boys and in some cases for girls.

- Relays. Both boys and girls enjoy an occasional period of their favorite relays of intermediate school days and relays should be a part of the weekly program.

Track and Field Activities. These activities may be given to both boys and girls but many of the activities must be modified to be suitable for girls. This modification eliminates many of the activities that perhaps other sports may be offered more profitably for girls during the spring season. Some of the activities should be modified for boys
because of the extensive training needed to build endurance, especially in the distance run. Safety precautions should be taken in the field events.

Intramural Sports. There should be an intramural program of competition in all sports on a seasonal basis. This has carry-over value into the varsity program.

The varsity program is an outgrowth of the instructional and intramural program. There exists now an excellent varsity program in the Marietta Public Schools consisting of football, basketball, baseball and track for boys. Basketball for girls is not generally recommended and should not be a part of the physical education program, except in the intramural competition and the team sport activities. This is in agreement with Irwin who states,\textsuperscript{14}

Interscholastic athletics for girls are not generally recommended because of the physiological, anatomical, and temperamental differences between boys and girls. Experience with girls interscholastic athletics has demonstrated conclusively that it is not too impossible to control and eliminate the detrimental phases. Furthermore, a majority of the secondary schools of America have not the resources to maintain both an interscholastic athletic program and satisfactory physical education for all girls. It has been so in the case of boys athletics and there is no justification for creating a similar situation for the girls.

Aquatics. A program of swimming and other aquatics is now being offered in the summer months and should be continued. The program now in use offers aquatics for students from the fourth to the twelfth grade.

\textsuperscript{14}\textit{Ibid.}, p. 182.
Time Allotment for Each Activity in High School.—The time allotted to the various activities at each grade level in the high school should depend upon the usual governing factors. The amount of time, facilities and climatic factors make it impossible to meet rigid allotments of time. Table 3 lists the approximate percentage allotment of time for the senior high school boys according to grade.

**TABLE 3**

PERCENTAGE ALLOTMENT OF TIME FOR BOYS ACTIVITIES IN THE SENIOR HIGH SCHOOL PROGRAM

<table>
<thead>
<tr>
<th>Activity</th>
<th>Percentage in Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>10</td>
</tr>
<tr>
<td>Individual and Team Sports</td>
<td>20</td>
</tr>
<tr>
<td>Recreational Sports</td>
<td>10</td>
</tr>
<tr>
<td>Dancing</td>
<td>10</td>
</tr>
<tr>
<td>Stunts and Self-testing Activities</td>
<td>10</td>
</tr>
<tr>
<td>Tumbling, Pyramids and Apparatus</td>
<td>10</td>
</tr>
<tr>
<td>Relays</td>
<td>5</td>
</tr>
<tr>
<td>Track and Field</td>
<td>10</td>
</tr>
<tr>
<td>Intramural Sports</td>
<td>25</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>100</td>
</tr>
</tbody>
</table>

This time allotment for activities should not be stable but flexible as the needs for certain groups may differ.

Table 4 lists the approximate amount of time allotted to activities for the senior high school girls. There is a slight increase of individual and team sports, dancing and recreational sports, with a decrease in the more strenuous activities. When certain of the types of activities are not
offered, the time can be given to those that are included in proportionate amounts as deemed advisable by the teachers in charge. Climatic conditions or immediate lack of facilities may also alter the time allotment.

### TABLE 4

PERCENTAGE ALLOTMENT OF TIME FOR GIRLS ACTIVITIES IN THE SENIOR HIGH SCHOOL PROGRAM

<table>
<thead>
<tr>
<th>Activity</th>
<th>Percentage in Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>10</td>
</tr>
<tr>
<td>Individual and Team Sports</td>
<td>25</td>
</tr>
<tr>
<td>Recreational Sports</td>
<td>15</td>
</tr>
<tr>
<td>Dancing</td>
<td>15</td>
</tr>
<tr>
<td>Stunts and Self-testing Activities</td>
<td>5</td>
</tr>
<tr>
<td>Tumbling, Pyramids and Apparatus</td>
<td>5</td>
</tr>
<tr>
<td>Relays</td>
<td>0.5</td>
</tr>
<tr>
<td>Track and Field</td>
<td>5</td>
</tr>
<tr>
<td>Intramural Sports</td>
<td>25</td>
</tr>
</tbody>
</table>

Total

|               | 100 | 100 | 100 |

The time allotment for these activities must be flexible not only to meet the needs of any particular group but because of the physical make-up of girls who are unaccustomed to the strenuous outdoor activities of boys.

**Facilities**

The playground contains approximately forty-three thousand, five hundred sixty square feet of surface. The surface contains very little grass, is very uneven and rocky. There is a huge incinerator in the center of the playground. The
swings, seesaws, slides, merry-go-rounds and climbing gym are located on the best part of the ground. The open level part of the space that could be used for group activities best has the incinerator in its center. Streets surround the unfenced playground on three sides. There are nine swings, nine seesaws, one small and one large merry-go-round, one small and one large slide, and one climbing gym. This equipment is rusty, unpainted, and needs the moving parts lubricated. Two footballs and two basketballs comprise the remainder of the playground equipment, except that brought by the children.

The gymnasium has a large playing floor, four basketball goals, volleyball and shuffleboard court. It contains two large dressing rooms, five showers in each room and sufficient lockers. There are toilet facilities in each room. The gymnasium is of concrete construction.

The athletic field is located six blocks from the school, is sodded with bermuda grass, and is fenced by chain-link fencing. The field is lighted for football, softball and baseball. There are seating facilities for fifteen hundred people. There is a large dressing room equipped with showers and toilet facilities at one end of the field.

Plan of Improvement of Facilities

The approved standard for elementary school playground provides a minimum of five acres, plus an additional acre
for each two hundred pupils enrolled. The Marietta Public Schools have no means of enlarging the playground which consists of two and one-half acres; therefore, efficient use of the present space must be utilized. This may be accomplished by removing the incinerator in the center of the area and smoothing the surface. A hard-surfaced area should be prepared on a space of fifty by one hundred feet to be used for games which need this type of surface. The space formerly containing the incinerator should be used as a field games area. The playground should be fenced as a safety precaution and to facilitate adequate control of activities. A chain-link or wire mesh fence, mounted on three inch galvanized iron pipes sunk in concrete footing which extends below the frost line is recommended. The upper end of the pipe should be closed, and the concrete base rounded off to shed water. The approved standard height for the elementary school playground fence is from four to five feet.

The wooden part of the playground equipment should be sanded, and the metal parts cleaned and moveable parts oiled. All of the playground equipment should be painted in attractive colors.

---

16 ibid., p. 308.
The safety precaution that should be taken in the use of this equipment consists of:

(1) Daily inspection of all apparatus, with prompt repair of damaged parts by competent persons;

(2) Instruction of children in the proper manipulation of apparatus;

(3) Correct use of equipment throughout all play periods.\textsuperscript{17}

```
Equipment

The following equipment should be purchased in addition to the equipment on hand to meet the established criteria:

4 Volleyballs
4 Soccer balls
4 Basketballs
4 Volleyball size rubber balls
4 Six-inch rubber balls
4 Sponge rubber balls
4 Playground balls
4 Playground bats
12 Bean bags
12 Indian clubs
8 Deck Tennis (tenniquoit) rings
8 Whistles (for the teacher and student referees)
6 Long jump ropes and 20 short (individual) ropes
4 Nets for volleyball and other net games
4 Standards for volleyball and other net games
1 Inflator
1 Limer and lime for marking field
4 Footballs
2 Shuffleboard sets
4 Table tennis sets
8 Four by eight tumbling mats
2 Badminton sets
Boxing equipment
```

In meeting the criteria of this program pertaining to healthful living, instruction, services, everything that makes

\textsuperscript{17}Ibid., p. 314.
up the physical education program, this program should be integrated with the present school curriculum for effective use. No other part of the curriculum offers more opportunity for helping children and youth develop physical, social, healthful and emotional fitness than does the program of health and physical education. The establishing of this program in the Marietta Public Schools should accomplish this goal.
CHAPTER III

THE PHYSICAL CONDITION OF PUPILS IN
THE MARIETTA PUBLIC SCHOOLS

To show the need for a comprehensive physical education program in the Marietta Public Schools, a series of screening tests were given to all of the students. In this chapter the screening tests not only show the need for the program but demonstrate their important role in health education. There is no objection to telling a bright-eyed boy that he has 20-20 vision. Pupils like to know why their eyes are tested, how well they see, and how the eye functions. The teacher may well discuss these questions with the children. In a similar way, hearing tests provide the teacher with an excellent opportunity to discuss the anatomy and physiology of the ear, and the reasons why colds and other upper respiratory tract infections spread so readily through the delicate structure of the ear. This is a good time to explain the importance of the proper care and treatment of colds, and how enlarged or infected adenoids block the eustachian tube and predispose to cause middle ear disease.

In some schools screening tests are used to discover pupils who are in need of orthopedic examination to determine the need for corrective measure. Where this is done, the teacher should precede the test with a discussion of the
values of good posture, and of the relationships between posture and such other factors as nutrition, fatigue and mental attitude.¹

The shortage of physicians, dentists, and nurses in many communities makes it imperative for teachers to learn the techniques involved in administering a variety of the screening tests. In this community, there is a definite shortage of this type of qualified personnel. There are three medical doctors and one dentist who serve not only this community but the entire county. The county does not have a practicing nurse. This is one of the few counties in the State not participating in the State Health Program due to lack of county funds; therefore, the teachers of this school should learn to administer and use these tests.

The screening tests given were for vision, skin disorders, hearing, posture, speech difficulties, malnutrition and undernourishment, nervous disorder, teeth, enlarged or infected tonsils and adenoids, and a check on the number of students who were immunized. These tests were given by the teachers of the Marietta Public Schools with the assistance of a registered nurse. Also, a group of students studying health education from the North Texas State College, Denton, Texas, gave the audiometer tests to all pupils for hearing.

These tests will be taken up and discussed in several

¹Charles O. Wilson, Health Education, p. 138.
groups. The first group concerns posture, malnutrition and undernourishment, and nervous disorders. Each student was carefully examined for these difficulties by the homeroom teacher. In Table 5, each grade is listed, the number of students in each grade, the number of posture defects in each grade, the number of malnutrition and undernourishment suspects, and the number of students exhibiting a tendency of nervous disorders.

### TABLE 5

RESULTS OF SCREENING TESTS OF SPEECH DIFFICULTIES, POSTURE DEFECTS, MALNUTRITION AND UNDERNOURISHMENT, AND NERVOUS DISORDERS

<table>
<thead>
<tr>
<th>Grade</th>
<th>Total Number of Students</th>
<th>Total Number of Students with Posture Defects</th>
<th>Malnutrition and Undernourishment</th>
<th>Nervous Disorders</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>60</td>
<td>9</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>2</td>
<td>42</td>
<td>5</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>3</td>
<td>48</td>
<td>6</td>
<td>5</td>
<td>7</td>
</tr>
<tr>
<td>4</td>
<td>45</td>
<td>7</td>
<td>7</td>
<td>3</td>
</tr>
<tr>
<td>5</td>
<td>39</td>
<td>6</td>
<td>3</td>
<td>13</td>
</tr>
<tr>
<td>6</td>
<td>49</td>
<td>7</td>
<td>8</td>
<td>4</td>
</tr>
<tr>
<td>7</td>
<td>51</td>
<td>10</td>
<td>8</td>
<td>1</td>
</tr>
<tr>
<td>8</td>
<td>34</td>
<td>6</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td>9</td>
<td>36</td>
<td>7</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>10</td>
<td>31</td>
<td>7</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>11</td>
<td>34</td>
<td>6</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>12</td>
<td>24</td>
<td>3</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>493</td>
<td>79</td>
<td>52</td>
<td>53</td>
</tr>
</tbody>
</table>

In the foregoing table the number of defects in each grade stay on about the same level from the primary grades through high school. The number of defects does not seem to
be abnormal, yet most of them could be corrected, especially through the health program in school.

Table 6 lists the number of defects found in each grade concerning the teeth, enlarged or infected tonsils and adenoids, and impaired hearing. These tests were given by a registered nurse with the assistance of the teacher, with the exception of the hearing tests which were given by the group audiometer method.

**TABLE 6**

**RESULTS OF SCREENING TESTS OF TEETH DEFECTS, ENLARGED OR INFECTED TONSILS AND ADENOIDs, AND DEFICIENCY OF HEARING**

<table>
<thead>
<tr>
<th>Grade</th>
<th>Total Number of Students</th>
<th>Number of Students Having</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Teeth Defects</td>
</tr>
<tr>
<td>1</td>
<td>60</td>
<td>19</td>
</tr>
<tr>
<td>2</td>
<td>42</td>
<td>10</td>
</tr>
<tr>
<td>3</td>
<td>48</td>
<td>20</td>
</tr>
<tr>
<td>4</td>
<td>45</td>
<td>11</td>
</tr>
<tr>
<td>5</td>
<td>39</td>
<td>15</td>
</tr>
<tr>
<td>6</td>
<td>49</td>
<td>13</td>
</tr>
<tr>
<td>7</td>
<td>51</td>
<td>18</td>
</tr>
<tr>
<td>8</td>
<td>34</td>
<td>12</td>
</tr>
<tr>
<td>9</td>
<td>36</td>
<td>17</td>
</tr>
<tr>
<td>10</td>
<td>31</td>
<td>17</td>
</tr>
<tr>
<td>11</td>
<td>34</td>
<td>16</td>
</tr>
<tr>
<td>12</td>
<td>24</td>
<td>13</td>
</tr>
<tr>
<td>Total</td>
<td>493</td>
<td>181</td>
</tr>
</tbody>
</table>

Table 6 shows that slightly more than a third of the students need dental attention. A fourth of the students have
enlarged or infected tonsils, a considerable number have defective adenoids and a large number have a hearing deficiency. Part of this probably is due to the lack of medical personnel in the community, but a major portion is due to parental neglect. A large amount of these defects may be corrected through a health education program cooperating with the students, school authorities, and the parents.

Table 7 lists the defects found in vision, skin disorders, and gives those students having no immunization against any communicable disease. The *Snellen chart-reading test* was given by the registered nurse, as also was the examination for skin disorders, and the homeroom teacher checked the pupils for their immunization record. The *Snellen chart-reading test* is a simple and effective means for testing visual acuity but it must be given carefully and should be supplemented by observing pupils for evidence of eye fatigue and eye strain.\(^2\)

For a survey of the immunization record, each pupil was questioned as to whether or not he had been immunized against typhoid fever, smallpox, and diphtheria within the last five years. Schools have the responsibility of educating children and adults in the importance of preventive inoculations, particularly against diphtheria and smallpox.\(^3\)

---


TABLE 7

RESULTS OF SCREENING TESTS FOR VISUAL ACUITY, SKIN DISORDERS, AND IMMUNIZATION RECORD

<table>
<thead>
<tr>
<th>Grade</th>
<th>Total Number of Students</th>
<th>Number of Students</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Defective Vision</td>
</tr>
<tr>
<td>1</td>
<td>60</td>
<td>8</td>
</tr>
<tr>
<td>2</td>
<td>42</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>48</td>
<td>5</td>
</tr>
<tr>
<td>4</td>
<td>45</td>
<td>5</td>
</tr>
<tr>
<td>5</td>
<td>39</td>
<td>9</td>
</tr>
<tr>
<td>6</td>
<td>49</td>
<td>9</td>
</tr>
<tr>
<td>7</td>
<td>51</td>
<td>14</td>
</tr>
<tr>
<td>8</td>
<td>34</td>
<td>8</td>
</tr>
<tr>
<td>9</td>
<td>36</td>
<td>8</td>
</tr>
<tr>
<td>10</td>
<td>31</td>
<td>9</td>
</tr>
<tr>
<td>11</td>
<td>34</td>
<td>7</td>
</tr>
<tr>
<td>12</td>
<td>24</td>
<td>4</td>
</tr>
<tr>
<td>Total</td>
<td>493</td>
<td>88</td>
</tr>
</tbody>
</table>

In the visual acuity test practically all of the students found with defective vision were unaware of the fact. Not only the students but their parents and teachers were also unaware of the defect. In the primary grades several of those tested were unable to see the blackboard from the back row where they were seated. A major portion of those having skin disorders were not being treated at home or by a physician. Slightly over seventy-three per cent of the students were not immunized against any communicable disease. This is an important phase of health service in the health education program, and may be remedied if the proper health program is installed in this school.
In Table 8 is found the seriousness of the defects relating to the physical condition of the students in the Marietta Public Schools. This table compares the students having single defects with the number having two or more defects and the number having no defects at all. Table 8 emphasizes the need for a well-rounded physical education and health program in this school more than possibly any other factor. These numbers are arranged by grade and will show the percentage comparison in the column adjoining the number of defects.

**TABLE 8**

**COMPARISON OF NUMBER OF DEFECTS**

<table>
<thead>
<tr>
<th>Grade</th>
<th>Total Number of Students</th>
<th>Students With Defects</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Single Percent</td>
</tr>
<tr>
<td>1</td>
<td>60</td>
<td>33</td>
</tr>
<tr>
<td>2</td>
<td>42</td>
<td>21</td>
</tr>
<tr>
<td>3</td>
<td>48</td>
<td>21</td>
</tr>
<tr>
<td>4</td>
<td>45</td>
<td>20</td>
</tr>
<tr>
<td>5</td>
<td>39</td>
<td>17</td>
</tr>
<tr>
<td>6</td>
<td>49</td>
<td>19</td>
</tr>
<tr>
<td>7</td>
<td>51</td>
<td>19</td>
</tr>
<tr>
<td>8</td>
<td>34</td>
<td>4</td>
</tr>
<tr>
<td>9</td>
<td>36</td>
<td>8</td>
</tr>
<tr>
<td>10</td>
<td>31</td>
<td>7</td>
</tr>
<tr>
<td>11</td>
<td>34</td>
<td>5</td>
</tr>
<tr>
<td>12</td>
<td>24</td>
<td>5</td>
</tr>
<tr>
<td>Total</td>
<td>493</td>
<td>178</td>
</tr>
</tbody>
</table>

These figures show that slightly more than one-third
of the school population are in a healthy condition as far as the screening tests show. Slightly more than one-third have single defects and a little less than one-third have two or more defects. Taking into consideration that all of these defects can be corrected and should be while children are attending public school, this is an abnormal number of defects that should be existing. The upper six grades are in better condition than the lower six. Health education in the elementary grades should be concerned primarily with helping pupils to live healthily which includes the forming of health habits and the early recognition and treatment of defects. This establishes a definite need for the functional health program, according to the statistics given in Table 8. By the appraisal of their strengths and weaknesses young people can be brought to understand the meaning and to appreciate the value of adequate health services in terms of both personal and social health.

In conjunction with these screening tests and in discussing healthful environment with the numerous teachers comprising the faculty of the Marietta Public Schools, a majority of them complained of the lighting facilities in the various classrooms. Since the classrooms are painted with a desirable type of paint and the amount of light coming into the room is controlled by the use of venetian blinds, a light meter was obtained and tests made in the various parts of each room. Table 9 lists the results of this test.
### TABLE 9

CLASSROOM LIGHTING TESTS RESULTS

<table>
<thead>
<tr>
<th>Grade or Subject Taught</th>
<th>Front</th>
<th>Back</th>
<th>Left</th>
<th>Right</th>
<th>Center</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>29</td>
<td>28</td>
<td>300</td>
<td>15</td>
<td>35</td>
</tr>
<tr>
<td>2</td>
<td>18</td>
<td>13</td>
<td>150</td>
<td>15</td>
<td>18</td>
</tr>
<tr>
<td>3</td>
<td>18</td>
<td>450</td>
<td>15</td>
<td>8</td>
<td>75</td>
</tr>
<tr>
<td>4</td>
<td>15</td>
<td>22</td>
<td>22</td>
<td>200</td>
<td>20</td>
</tr>
<tr>
<td>5</td>
<td>26</td>
<td>23</td>
<td>75</td>
<td>15</td>
<td>40</td>
</tr>
<tr>
<td>6</td>
<td>40</td>
<td>75</td>
<td>75</td>
<td>22</td>
<td>40</td>
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<tr>
<td>7</td>
<td>12</td>
<td>12</td>
<td>50</td>
<td>8</td>
<td>15</td>
</tr>
<tr>
<td>8</td>
<td>15</td>
<td>20</td>
<td>110</td>
<td>8</td>
<td>30</td>
</tr>
<tr>
<td>Commercial</td>
<td>40</td>
<td>60</td>
<td>20</td>
<td>250</td>
<td>80</td>
</tr>
<tr>
<td>Social Studies</td>
<td>15</td>
<td>15</td>
<td>125</td>
<td>13</td>
<td>25</td>
</tr>
<tr>
<td>Mathematics</td>
<td>15</td>
<td>20</td>
<td>110</td>
<td>8</td>
<td>45</td>
</tr>
<tr>
<td>Science</td>
<td>7</td>
<td>45</td>
<td>110</td>
<td>9</td>
<td>45</td>
</tr>
<tr>
<td>English</td>
<td>23</td>
<td>75</td>
<td>300</td>
<td>13</td>
<td>50</td>
</tr>
<tr>
<td>Music</td>
<td>50</td>
<td>25</td>
<td>15</td>
<td>275</td>
<td>75</td>
</tr>
<tr>
<td>Home Economics</td>
<td>20</td>
<td>25</td>
<td>17</td>
<td>10</td>
<td>20</td>
</tr>
<tr>
<td>Study Hall</td>
<td>18</td>
<td>25</td>
<td>150</td>
<td>25</td>
<td>25</td>
</tr>
<tr>
<td>Gymnasium</td>
<td>18</td>
<td>18</td>
<td>20</td>
<td>20</td>
<td>20</td>
</tr>
</tbody>
</table>

The recommended standard for classroom lighting is twenty candle power on every desk. The readings in the above table were taken with the light meter lying on the desk. As Table 9 shows, the amount of light coming in to the room is not evenly distributed over the room, and if it were, it would still be too much. This situation can be remedied with the proper adjustment of the venetian blinds and using the light meter to affect the adjustment.

---

To show the value and motivation of these screening tests in a health program, a letter was sent to the parents of each child having a defect stating the kind of defect, and that a further examination by a specialist or their family doctor was recommended. An immediate response was made by the parents of some of these children, especially those residing in the city, exhibiting interest in the program. Some of them immediately took their children for further examination and correction. A weak response was made from the parents of the rural pupils. However, sufficient interest was aroused by the patrons of the school district to cause the administration of the school to include a school health program in the curriculum for the next school year.

The response made by the parents to these screening tests further establishes the need for the recommended program in this school. The fact that many parents hold the school responsible for the health of their children is shown by the weak response and lack of interest in the screening tests, especially from the rural section. Therefore, the school should provide for a comprehensive health and physical education program.
CHAPTER IV

SUMMARY AND CONCLUSIONS

Summary

The study that has been made of the need for a comprehensive physical education program in the Marietta, Oklahoma Public Schools, and the proposed plan of improvement indicates that the present physical and health education program fails miserably to meet the established criteria with the exception of the Junior High School. The facilities are fairly adequate but need proper maintenance and supervision. The data presented in Chapter III by screening tests definitely establish the need for a comprehensive program as outlined in Chapter II.

The plan of improvement may be installed with little change of the present curriculum, but with some effort of the administration and faculty to meet the objectives.

Conclusions

A summary of conclusions derived from this study may be stated as follows:

1. The home is doing very little toward the health of a majority of the school students.

2. The present health instruction program is concerned with the mere teaching of scientific facts.

3. The Marietta Public School system, in light of the
criteria, is doing little toward the health of the student body, but is more concerned with the teaching of subject matter.

4. The high school and elementary school do not have a physical education program.

5. Competitive athletics is stressed in the high school completely ignoring those who are not athletically inclined.

6. The physical and health education program should be flexible and not stable.

7. The playground facilities and activities are not supervised or efficiently used.

8. Screening tests may be used not only for the finding of defects but also furnish a motivation for health education.

9. Students, parents and teachers may be unaware of serious and correctable health defects.

10. An epidemic of communicable disease could develop into serious proportions in the community because of the lack of immunizations.

11. The reason for the county non-participation with the Oklahoma State Department of Health Program is due to the lack of county funds.

12. Approximately one-third of the student body has two or more physical defects which may be easily corrected at an early age and only one-third are free of defects.

13. Teachers are a poor judge of lighting arrangements in the classroom.
14. There exists a healthy school environment in relation to buildings, classrooms and their facilities.

15. The classroom teacher is a key figure in health education and should have instruction in learning to administer and use screening tests.

16. A health program should be based on accepted educational aims and objectives.

17. There is a situation of healthful living relationships among the pupils, pupils and teachers, the teacher, pupil and administration, and the school community.

18. Most parents expect the school to provide for the health of their children.

19. The parents of children living in the city are more concerned about the health of their children than those living in the country.
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