

AN EVALUATION OF THE GIRLS' PHYSICAL EDUCATION  
PROGRAM AT LINCOLN JUNIOR HIGH SCHOOL

by

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## THE PROBLEM AND DEFINITIONS OF TERMS USED

The physical education program is a very important phase of the school's curriculum. There is evidence to show that schools which meet established standards in terms of the objectives of health and physical education are teaching pupils more effectively in the field of physical education.<sup>1</sup> To determine whether or not established standards are being met in the physical education program at Lincoln Junior High School, an evaluation of the physical education program was made.

### I. THE PROBLEM

Statement of the problem. The purpose of this study was to evaluate the girls' physical education program at Lincoln Junior High School, Kansas City, Missouri. The school was evaluated and rated according to National Standards established by the Committee on Curriculum Research of the College Physical Education Association. The Committee on Curriculum Research was assisted by representative physical education supervisors throughout the United States.

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<sup>1</sup>Karl Bookwalter, "Research Says Yes," Journal of Health, Physical Education and Research, 30:22-66, December 1959.

Importance of the study. This evaluation attempted to determine strengths and weaknesses of the girls' physical education program at Lincoln Junior High School. The study disclosed information usable for planning improvement in the physical education curriculum at Lincoln Junior High School.

## II. DEFINITIONS OF TERMS USED

Evaluation. The term evaluation used in this study referred to an appraisal being carefully concluded as a result of delving into the physical education program of Lincoln Junior High School.

Physical education. The term physical education was interpreted as meaning all of the planned physical activities to help the child in his social, emotional, physical, and mental growth. These experiences include all required physical education activities, intramurals, and interscholastic activities.

## III. METHOD OF COLLECTING INFORMATION

As a means of securing information for this study, a score card providing a comprehensive evaluation of the total physical education program was used. The score card was developed over a span of nine years by the Committee on

Curriculum Research of the College Physical Education Association. The committee was assisted by representative physical education supervisors throughout the United States, with William Ralph LaPorte as chairman. LaPorte was, at the time, professor of physical education and education at the University of Southern California.<sup>1</sup>

This score card was utilized as a measuring device for evaluating the physical education program and the general health, recreation, and safety provisions of an entire school. The score card was designed to produce information pertaining to (1) the program of activities, (2) outdoor areas, (3) indoor areas, (4) locker and shower areas, (5) swimming facilities, (6) supplies and equipment, (7) medical examination and health service, (8) modified-individual (corrective) activities, (9) the organization and administration of class programs, and (10) the administration of intramural and interschool athletics.

The score card contained ten parts and consisted of one hundred questions. The numerical rating score for each question ranged from zero to three points.

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<sup>1</sup>William Ralph LaPorte, The Physical Education Curriculum (sixth edition; Los Angeles: College Book Store, 1955), pp. 66-86.



To secure essential information for answering the questions on the score card, the principal and the school nurse were interviewed. The investigator's knowledge, as a physical education teacher at Lincoln Junior High School, was also used. The score card was checked by the investigator with assistance from the principal and the school nurse. The complete score card and the rating for each item are included as a part of this report.

The results of each section were tabulated after the score card ratings were made. A comparison was then made with the national means taken from the study "National Survey of Health and Physical Education in High Schools 1950-1954" conducted by Dr. Karl Bookwalter<sup>1</sup> and was based on the criteria set up by LaPorte.

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<sup>1</sup>Karl Bookwalter, "National Survey of Health and Physical Education in High Schools 1950-1954" (Bloomington, Indiana: Bureau of Service and Research, School of Health, Physical Education, and Recreation, 1955), p. 6.

## REVIEW OF THE LITERATURE

Many attempts have been made to evaluate the effectiveness of physical education programs. The importance of this portion of the curriculum demands a constant study on the part of the school administration and staff.

Brown, in his Master's report ("A Study of the Status of Health and Physical Education in Riley County, Kansas") found that larger schools registered higher scores than smaller schools; that newer schools ranked higher than the old ones in all equipment; that excellence and successful administration of programs were not dependent upon the amount of money invested in the programs; and that some of the schools with less equipment had more vital programs than the expensively equipped ones.<sup>1</sup>

Dr. Karl Bookwalter, in his "National Survey of Health and Physical Education in High Schools 1950-1954," concluded in his basic findings:

We are less than 30 per cent effective in the total program nationally; the southern states, on the average, are inferior to the northern states; demonstration,

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<sup>1</sup>Earnest Lane Brown, "A Study of the Status of Health and Physical Education in Riley County, Kansas" (Unpublished Master's report, Kansas State University, Manhattan, 1959), p. 45.

practice schools and public schools rank in that order; remedial work and swimming are the two lowest areas of the program; the activity program is the next lowest; organization and athletic areas are the highest two areas of the program; Negro school programs tend to be inferior to white school programs; teachers are less effective than administrators in meeting standards; state athletic associations, regional associations and state departments rank in that order as to eliciting effectiveness; sound athletic programs are associated with good total programs; accreditation, school size and town size are associated with improved programs in that order; in no standard of score are we nationally superior and we are inferior nationally in 25 of the items of the score card.<sup>1</sup>

The total score findings which resulted from Dr. Bookwalter's study revealed the following information:<sup>2</sup>

1. The median national score was approximately 28 per cent of the possible score of 100 per cent.
2. The median score for the 266 Negro schools was 25 per cent of the total possible score.
3. Of the 2,648 schools included in the study, the score ranged from 2 to 71 per cent of the possible score.
4. Of the states, Connecticut rated first with a score of 41 per cent of the possible score. Compared with the total score of 150 (50 per cent of the possible) over 75 per cent of all the schools in each state were below this standard.

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<sup>1</sup>Bookwalter, loc. cit.

<sup>2</sup>Ibid., p. 2.

## DESCRIPTION OF LINCOLN JUNIOR HIGH SCHOOL

Lincoln Junior High School was constructed as a result of an eighteen-million-dollar bond issue levied specifically for the building of schools. Lincoln, a four-and-a-half-million-dollar building, was constructed in 1954. In 1956 the school opened, housing the seventh, eighth, and ninth grades. After the first year, because of an excess number of seventh and eighth graders, the ninth grade was added and moved to the senior high school. Lincoln Junior High School is presently composed of the seventh and eighth grades.

The physical plant consists of thirty-one classrooms, two gymnasiums, a laundry, an auditorium, a cafeteria, a swimming pool, and ten administrative offices.

The present staff includes a principal, a vice principal, forty-seven teachers, nine custodians, eleven cafeteria workers, a matron, a half-time nurse, two counselors, and four secretaries.

Lincoln Junior High School is accredited as a "AAA" school. This is determined by the State Department of Public Instruction of Missouri. The present pupil enrollment is nine hundred and seventy, all of whom are Negroes.

## RESULTS AND DISCUSSION

Listed below are the items as taken from LaPorte's<sup>1</sup> Health and Physical Education Score Card Number II: For Junior and Senior High Schools and Four-Year High Schools. The following score card was the instrument used in evaluating the girls' physical education program at Lincoln Junior High School. The possible score for each part was thirty. Each item was scored and the total actual score of each part was recorded.

### I. RESULTS

#### Health and Physical Education Score Card Number II

##### I. Program of Activities

Possible Score = 30; Actual Score = 23

1. Content of core and elective programs is distributed over gymnastics, rhythms, aquatics, individual sports (including defense activities), and team sports.  
(Not less than 6% of time to each of the five types = 1; not less than 9% = 2; not less than 12% = 3)  
Score = 2

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<sup>1</sup>LaPorte, loc. cit.

2. Program calls for systematic class instruction in activity fundamentals on the "block" or "unit of work" basis (continuous daily instruction in an activity for from three to six weeks).  
(Definite, but unsystematic, instruction = 1; systematic instruction in other than block program = 2; systematic block instruction = 3)  
Score = 2
3. Daily participation in Physical and/or Health Education class instruction periods of from 45 to 60 minutes is required of all students.  
(Two days a week = 1; four days = 2; five days = 3)  
Score = 3
4. Participation in intramural sports in addition to class instruction is available for all students.  
(Fair program = 1; good = 2; excellent = 3)  
Score = 3
5. Detailed yearly program (course of study, including special objectives) for each grade level is on file in Principal's Office, and activity schedules are posted on gymnasium office bulletin boards.  
(Fair program = 1; good = 2; excellent = 3)  
Score = 2
6. A course of study committee (men and women) gives consideration at least annually to needed revisions in the program.  
(Fairly active = 1; active = 2; very active = 3)  
Score = 2
7. Provision is made for adequate maintenance and sanitation of school grounds, plant, and classrooms.  
(Fair = 1; good = 2; excellent = 3)      Score = 3



8. A modern health instruction program is maintained under expert leadership in physical education, in home economics, or in general science, or is correlated through several departments.  
(Separate course in one department = 1; fairly well correlated = 2; completely correlated, with co-ordinating director = 3)                      Score = 2
9. A comprehensive safety education program is maintained, emphasizing safety habits and practices, safety codes, and safety standards, in all departments.  
(Fair programs = 1; good = 2; excellent = 3)                      Score = 3
10. Definite efforts are made to encourage faculty recreational activity and to improve the health status of teachers.  
(Fair results = 1; good = 2; excellent = 3)                      Score = 1

There was a total of twenty-three points scored in this part. The items that received the perfect score of three points were items 3, 4, 7, and 9. The item receiving the lowest score was number 10. This was concerned with definite efforts being made to encourage faculty recreational activity to improve the health status of teachers. There seems to be no apparent desire on the part of the staff to participate in a program of this nature. The mean score for the ten items in the program of activities was 2.3 points. The mode for the ten items was two points.

## II. Outdoor Areas

Possible Score = 30; Actual Score = 20

1. Total available unobstructed field and court playing space for school and community use varies from four to fifteen or more acres, according to size of school.  
(Minimum of four acres--an area equal to one small soccer field, seven tennis courts, and one hard baseball field, and one additional acre for each added unit of five hundred students [boys and girls] = 1; minimum of six acres, and one additional acre for each additional unit of four hundred students = 2; minimum of eight acres, and one additional acre for each additional unit of three hundred students = 3)                      Score = 3
2. Sufficient playing fields are marked off and equipped (for multiple use in field hockey, field ball, soccer, softball, speedball, touch football, etc.) to accommodate all outside peak-load classes (both boys and girls).  
(Fair facilities = 1; good facilities = 2; excellent facilities = 3)                      Score = 3
3. Court areas (for separate or multiple use in archery, badminton, handball, horseshoes, paddle tennis, tennis, etc.) are marked off and equipped to accommodate both boys' and girls' classes in all court activities offered.  
(Fair facilities = 1; good facilities = 2; excellent facilities = 3)                      Score = 1
4. Field and court areas are surfaced with materials that are resilient, nonslippery, firm and as nearly dustless as possible, and have suitable slope for good drainage in rainy weather. At least 20% of area should be paved for multiple court game use, with blacktop (Bitumals or asphaltic concrete).  
(Hard packed clay or decomposed granite, plus 20% blacktop = 2; good turf, plus some dirt area, plus 20% blacktop = 3)                      Score = 3



5. Jumping pits and field apparatus are protected by sawdust, and/or dirt kept soft.  
(Dirt kept soft = 1; sand = 2; sawdust = 3)  
Score = 0
6. Field, court, and diamond areas are kept clean and well marked; are without hazardous obstructions; and are laid out to provide maximum relief from sun glare.  
(Fair condition = 1; good = 2; excellent = 3)  
Score = 3
7. Maintenance work on fields and courts is done by workmen other than instructors or students.  
(Partly by others = 1; mostly = 2; entirely = 3)  
Score = 3
8. All play areas are fenced off from streets, with subdivision fences where necessary for safety and control.  
(Partly fenced = 1; all fenced from streets = 2; all fenced with subdivision = 3)  
Score = 3
9. Play areas are bordered by attractive trees, shrubbery, and vines; and in warm climates are equipped with shaded tables and seats.  
(Fair condition = 1; good = 2; excellent = 3)  
Score = 1
10. Play areas are lighted for night use for community recreation programs.  
(Fair lighting = 1; good = 2; excellent = 3)  
Score = 0

The total score obtained in this area was twenty.

Items 1, 2, 4, 6, 7, and 8 received perfect scores. The items receiving the lowest rating were items 5 and 10. Item 5 was concerned with protection of jumping pits and field apparatus. This item received a zero rating primarily because of the lack of provision for such a facility. Item

10 was related to lighted play areas for night-time use in community recreation programs. A zero rating was given this item because of a lack of provision for such a facility.

The mean score for the ten items in the outdoor areas was two points. The mode for the ten items was three points.

### III. Indoor Areas

Possible Score = 30; Actual Score = 19

1. One or more gymnasium areas sufficient for boys' and girls' inside class activities (according to size of school) (for common use for apparatus, boxing, corrective, fencing, gymnastics, rhythms, tumbling, and wrestling) are available and are appropriately equipped, and properly heated, lighted and ventilated.  
(Standard approximately met = 2; fully met = 3)  
Score = 2
2. Gymnasium floors are of hardwood; lines are properly painted; walls are smooth and clear; painting is a light, neutral color; radiators and drinking fountains are recessed; ceiling height is between eighteen and twenty-two feet.  
(Standards approximately met = 2; entirely met = 3)  
Score = 3
3. Additional classrooms, appropriately equipped for theory instruction and health education classes, are provided in the building or conveniently adjacent.  
(One room = 2; two or more rooms = 3) Score = 2
4. Special rooms for coeducational social activities are appropriately furnished.  
(Classrooms or gymnasiums partly furnished = 1; well-furnished separate rooms = 3) Score = 1

5. A rest-room for boys (equipped with cots, pads, blankets, and sheets), adequate to handle peak-load use of building, is provided for use in injury or illness, or for rest periods.  
(One cot for 100 boys in peak-load = 1; one cot for 75 boys = 2; one cot for 50 boys = 3)  
Score\*
6. A rest-room for girls, with equipped cots adequate to handle peak-load use of building, is provided for use in injury or illness, or for rest periods.  
(One cot in peak-load for 50 girls = 1; one cot for 30 girls = 2; one cot for 20 girls = 3)  
Score = 1
7. Rest-rooms for men and women faculty members are provided with appropriate dressing rooms and showers.  
(Satisfactory facilities for women only = 2; for both men and women = 3)  
Score = 3
8. An equipment office is provided in both boys' and girls' locker rooms, properly arranged for issuing towels, suits, and supplies for both indoor and outdoor use.  
(Satisfactory office for only boys or girls = 2; satisfactory for both = 3)  
Score = 3
9. Properly equipped instructors' offices (separate for men and women), with suitable facilities for medical examinations, are available, in good locations for adequate supervision of student activities.  
(Well-equipped offices, but poorly located for supervision = 1; well-equipped, with good supervision of one major activity area = 2; well-equipped, with supervision of two or more major activity areas = 3)  
Score = 2

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\*Boys' criteria which do not apply to this study.

10. The combined inside facilities (including classrooms, gymnasiums, and special rooms) are adequate to handle all classes (boys and girls) inside, during bad weather.  
(Approximately = 2; entirely = 3)      Score = 2

The total score obtained in this area was nineteen points. Items 2, 7, and 8 received the perfect score of three points. The items receiving the lowest ratings were items 4 and 6. Item 4 was concerned with provisions for furnishing special rooms for coeducational social activities. Item 6 was concerned with rest-room for girls being adequately equipped, with provision for use in injury, illness or for rest periods. Item 5 was not answered because of the limitations of this study, the limitation being that it pertained only to girls' physical education and not the boys'. The mean score for the ten items was 1.9 points. The mode for the ten items was two points.

#### IV. Locker and Shower Areas

Possible Score = 30; Actual Score = 22

1. Locker rooms (sunny and well ventilated) provide free floor space, exclusive of lockers, adequate to care for peak-load of use. (Peak-load equals largest number of students dressing in any one class period.)  
(Eight sq. ft. per pupil = 1; ten sq. ft. = 2; twelve sq. ft. = 3)      Score = 3

2. Individual locker facilities are provided for all students.  
(Box lockers or narrow vertical lockers = 1; combination box and dressing lockers = 2; half-length, standard size lockers, or self-service basket system, combined with full-length dressing locker for peak-load = 3) Score = 3
3. Adequate lock protection is provided for lockers or baskets.  
(Key locks = 1; permanent combination locks = 2; high-grade combination padlocks = 3) Score = 3
4. Continuous supervision by either equipment clerks or instructors is provided for locker areas while in use by students.  
(Fair supervision = 1; good = 2; excellent = 3)  
Score = 3
5. Boys' dressing areas are of the open aisle type, with fixed benches in the aisles; girls' areas offer choice of "gang" type or closed-booth type.  
(Standards approximately met = 2; fully met = 3)  
Score\*
6. Boys' shower rooms are of the "gang" type, with adequate drying room capacity; girls' areas offer choice of "gang" type or closed-booth type.  
(Standards approximately met = 2; fully met = 3)  
Score\*
7. Shower rooms provide eight to twelve square feet of floor area per shower head and sufficient showers to take care of peak-load adequately.  
(Five students per shower at peak-load = 1; four per shower = 2; three per shower = 3) Score = 3

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\*Boys' criteria which do not apply to this study.

8. Hot water is thermostatically controlled to prevent scalding; shower heads are at neck height; liquid soap dispensers are provided in all shower areas.  
(Standards approximately met = 2; fully met = 3)  
Score = 2
  
9. Adequate toilet facilities are available in separate areas immediately adjoining locker and shower rooms (accessible directly to playground); and contain adequate bowls, urinals, washbasins (conforming to established standards for the peak-load), hot and cold water, liquid soap dispensers, drinking fountains, mirrors, waste-baskets, and paper towels or drying machines.  
(Fair facilities = 1; good = 2; excellent = 3)  
Score = 3
  
10. Floors are washed daily with antiseptic solution; and antiseptic foot baths are provided for optional use, to aid in control of foot ringworm.  
(Standards approximately met = 2; fully met = 3)  
Score = 2

The total score obtained in this area was twenty-two points. Items 1, 2, 3, 4, 7, and 9 had perfect ratings. Items 8 and 10 had the lowest ratings. Item 8 was concerned with hot water being thermostatically controlled to prevent scalding. Item 10 was concerned with use of antiseptic solution in the daily washing of floors and provisions of antiseptic foot baths for optional use to control foot ringworm. Items 5 and 6 were not rated because they were criteria for a boys' physical education program. The mean score for the ten items was 2.2 points. The mode for the ten



items was three points.

# V. Swimming Pool

Possible Score = 30; Actual Score = 30

1. Adequate swimming facilities are available for all students (both boys and girls).  
(Off-campus facilities, closely adjoining = 1; small pool (less than 1250 sq. ft.) on school grounds = 2; large pool (over 1250 sq. ft.) on school grounds = 3) Score = 3
2. Pool construction provides proper acoustics; suitable scum gutters; nonslip decks; white tile or other light finish on sides and bottom; underwater lighting if pool is used at night; bottom of pool clearly visible at all times of operation.  
(Standards approximately met = 2; fully met = 3) Score = 3
3. Pool is equipped with adequate machinery for heating, filtering, and sterilizing water, and for maintaining it in conformity with established health standards.  
(Fair equipment = 1; good = 2; excellent = 3) Score = 3
4. Standard tests are made daily for air temperature, water temperature, motor acidity, and residual chlorine content and, at least weekly, for bacterial content of water.  
(Score = 3) Score = 3
5. Pool is equipped with standard safety devices and is protected by control doors which are kept locked at all times, except when life guard or instructor is on duty.  
(Score = 3) Score = 3

6. Swimmers are required to enter pool through a water foot bath, opening from the shower rooms; to visit toilet and take supervised soap shower baths before entering; and are not permitted in pool with colds or skin infections.  
(Standards approximately met = 2; fully met = 3)  
Score = 3
7. Spectators in street shoes are not permitted on pool decks but are provided with appropriate gallery space.  
(Score = 3) Score = 3
8. Use of pool facilities is distributed equally between men and women students.  
(Approximately met = 3) Score = 3
9. All life guards and swimming instructors are required to hold the Senior Red Cross Life Saving Certificate or Examiner's Certificate.  
(Score = 3) Score = 3
10. Pool is available for community recreational use when not required for school purposes, particularly during summer months.  
(Score = 3) Score = 3

NOTE: Schools without campus pools or adjacent facilities, if they conduct and stress swimming campaign, may score up to maximum of 15 points for swimming pool, as follows:  
(Annual "learn to swim" campaign, in cooperation with Red Cross or other agency, reaching successfully 25% of student body = 5; campaign reaching 50% of the student body = 10; campaign reaching 75% of student body = 15)

Out of the ten categories rated, the category concerning the swimming pool ranked highest in scoring. Each item received a perfect score of three points. This area scored thirty points out of the possible score of thirty. The mean score was three points. The mode score was three



points.

# VI. Supplies and Equipment

Possible Score = 30; Actual Score = 20

1. Adequate supply of balls, in good condition, and similar equipment is available for class instruction in all team activities offered.  
(One ball, or other item, for every ten members of average size class = 1; one for every eight members = 2; one for every six members = 3)  
Score = 3
2. Class sets of supplies for individual or dual sports are provided for class instruction in all activities offered (archery, badminton, handball, golf, horseshoes, table tennis, squash, tennis, etc.).  
(Individual supplies for each member of average size class = 2; for each member of peak-load class = 3)  
Score = 2
3. All class supplies are kept repaired and in good condition. (Balls clean and well inflated, bats taped; both for efficiency and safety.)  
(Fair condition = 1; good = 2; excellent = 3)  
Score = 3
4. All students wear appropriate uniforms in activity classes.  
(Uniform furnished by themselves = 1; provided by school, and fee charged = 2; provided by school, without charge = 3)  
Score = 1
5. Towels and swimming suits or trunks (where needed) are made available.  
(Furnished by student = 1; by school, with fee = 2; by school, without charge = 3)  
Score = 3
6. Swimming suits and towels are laundered daily, and uniforms weekly.  
(By student at home = 1; by school, with fee = 2; by school, without charge = 3)  
Score = 2

7. Adequate first aid supplies are available at all times in a first aid room, or in instructors' offices and equipment offices.  
(Fair supplies = 1; good = 2; excellent = 3)  
Score = 1
8. Adequate equipment clerks (other than instructors) are provided at all activity hours to handle equipment and supplies (including towel dispensing).  
(Volunteer student help not for physical education credit = 1; paid student help = 2; full-time equipment clerk = 3)  
Score = 1
9. Piano and pianist, or phonograph, and other necessary musical accompaniment are furnished for dancing classes.  
(Fair equipment and service = 1; good = 2; excellent = 3)  
Score = 3
10. Activity supplies are available for community recreational use outside of school hours.  
(Score = 3)  
Score = 1

The total score obtained in this area was twenty points. Items 1, 3, 5, and 9 received perfect scores. Items 4, 7, 8, and 10 received a rating of one point, which was the lowest rating scored in this area. The mean score for the ten items was two points. The score for the ten items was bimodal, with three points and one point appearing an equal number of times.

VII. Medical Examinations and Health Service  
Possible Score = 30; Actual Score = 23

1. Medical examining, advisory, and emergency service is provided by school physicians with co-operative arrangements for handling handicapped and problem cases in school or public clinics, or by private medical practitioners.  
(Adequate volunteer service by community physicians = 2; part-time paid school physicians, or [in schools of 2,000 or more] one or more full-time physicians = 3)                      Score = 2
2. Trained school nurse service is provided for both school and home visitation purposes, by either part-time or full-time nurses, by either part-time nurses according to size of school.  
(Fair service = 1; good service = 2; excellent service = 3)                      Score = 2
3. A comprehensive examination by the school physician (assisted by physical education instructors) is required of every student at least once in each school level (example, junior high); and includes at least a careful check for orthopedic and postural defects, vision, hearing, nose, mouth, throat, teeth, heart, lungs, nutrition, skin, nervous condition, and possible hernia.  
(Once in school level = 2; two or more times in school level = 3)                      Score = 3
4. No student is permitted to participate in strenuous class athletic activity without a satisfactory medical examination.  
(Score = 3)                      Score = 3
5. A permanent, continuous, progressive health record is maintained and passed on for each child and is used as a basis for advice and follow-up health service.  
(Fair = 1; good = 2; excellent = 3)                      Score = 3

6. On basis of medical examination children are classified into three divisions, or equivalent; A. average normal for unlimitation to restricted activity; B. subnormal, with temporary or permanent limitation to restricted activity; C. offered individual or corrective treatment, supplementing normal program.  
(Fair = 1; good = 2; excellent = 3)      Score = 1
7. Assignment to rest, restricted, or individual activity, or excuse from required normal physical education activity (for other than temporary illness) is approved by the school physician, in consultation with the physical education department head.  
(Score = 3)      Score = 2
8. Students returning after influenza or other serious illness are inspected by the school physician or nurse and assigned to a modified program until their condition justifies resumption of normal activity; students sent home in case of illness or accident are accompanied by an adult.  
(Standards approximately met = 2; fully met = 3)  
Score = 2
9. A health examination is made by the school physician of all teacher applicants, followed by a periodic examination every three years thereafter; and a careful inspection of all teachers returning to duty after illness of two weeks or more.  
(Standards approximately met = 2; fully met = 3)  
Score = 2
10. Nonmedical teachers or school officers are never permitted to diagnose or treat health disorders; but close co-operation is maintained between physical education teachers and the school physician.  
(Score = 3)      Score = 3

The total score obtained in this area out of a possible score of thirty points was twenty-three points. The

highest ranking items were 3, 4, 5, and 10. The lowest ranking item was item 6, which received a rating of one point. This item was concerned with classification of pupils according to medical examination. The mean score for the ten items was 2.3 points. The mode for the ten items was two points.

#### VIII. Modified-Individual (Corrective) Activities

Possible Score = 30; Actual Score = 4

1. Adequate modified and individual activity classes, with limited enrollment, are provided for students incapacitated for normal participation or needing special postural or orthopedic correction (classes B and C).  
(Maximum of 30 students = 1; 25 students per instructor = 2; 20 students per instructor = 3)  
Score = 0\*
2. All modified and individual activity cases are properly classified and grouped within classes for effective instruction and guidance, according to their condition.  
(Fair = 1; good = 2; excellent = 3) Score = 0\*
3. Extreme types of restricted cases are assigned to periodic rest periods, in addition to the modified activity, with appropriate reductions in academic program, where needed.  
(Fair = 1; good = 2; excellent = 3) Score = 0\*

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\*Criteria applicable but not included in program; zero rating.

4. Adequate facilities are provided for suitable games for modified cases (table tennis, deck tennis, horseshoes, croquet, archery, shuffleboard, etc.).  
(Fair facilities = 1; good = 2; excellent = 3)  
Score = 2
5. Adequate facilities for handling individual activity cases are available either within the school or in a central corrective center, accessible to several schools (or the equivalent).  
(Fair facilities = 1; good = 2; excellent = 3)  
Score = 0\*
6. All teachers assigned to handle individual activity (corrective) classes have had technical training in corrective and therapeutic work.  
(Fair training = 1; good = 2; excellent = 3)  
Score = 0\*
7. In individual activity instruction, emphasis is placed upon practicing the directed exercises at home frequently, with the co-operation of parents; and upon maintaining good postural alignments at all times.  
(Fair = 1; good = 2; excellent = 3) Score = 0\*
8. All individual activity cases are encouraged to participate also in modified class activities for which they are fitted and are returned to normal activity as soon as their condition permits.  
(Fair = 1; good = 2; excellent = 3) Score = 0\*
9. Whenever possible, interesting activities of the sports, gymnastic, aquatic, or rhythmical types are used in place of corrective drills, to secure postural and corrective results.  
(Fair results = 1; good = 2; excellent = 3)  
Score = 0\*

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\*Criteria applicable but not included in program; zero rating.



10. Normal students, who are temporarily incapacitated for strenuous activity because of accident, operation, or serious illness, are assigned to modified activity, under supervision (either in their regular period or in a special class), until school physician or nurse approves their return to regular class work.  
(Score = 3) Score = 2

The total score obtained in this area was four points. This was the lowest scoring category of the ten areas evaluated. All items, except items 4 and 10, received zero rating. They were applicable but not included in the physical education program of Lincoln Junior High School. The mean score for the ten items was four points. The mode score for the ten items was a zero rating.

IX. Organization and Administration of Class Programs  
Possible Score = 30; Actual Score = 24

1. All persons coaching teams, or handling physical education classes or community recreation activities under school supervision, are properly certified to teach in the state and have had extensive training and/or experience in physical education.  
(All certified and experienced = 2; all with a major or minor = 3) Score = 3
2. Teachers are active in professional organizations such as the American Association for Health, Physical Education, and Recreation, attend professional meetings, subscribe to professional magazines, and maintain a good supply of late professional books in the library.  
(Fairly active = 1; active = 2; very active = 3) Score = 3

3. Instructors stress co-ordinated teaching; combining with performance fundamentals, the necessary rules, team strategy, social and ethical standards, health and safety factors; and attempt to adapt program to outside recreational needs and interests.  
(Fair = 1; good = 2; excellent = 3)      Score = 3
4. Frequent opportunity is provided for co-educational activity, either in class instruction or in recreational participation.  
(Mild encouragement = 1; co-educational intramural sports = 2; co-educational elective class instruction = 3)      Score = 1
5. Instructional classes for normal students are limited in size for effective instructional purposes.  
(Maximum of 45 students per instructor = 1; 40 students per instructor = 2; 35 students per instructor = 3)      Score = 2
6. Teacher class assignments (including after school responsibilities such as team coaching and playground direction, unless these involve additional salary) are sufficiently limited for adequate instruction.  
(Maximum load six hours per day = 2; five hours per day = 3)      Score = 3
7. Testing for final grade in activity classes is distributed over (1) performance skills, (2) knowledge of rules and strategy (3) social attitudes (citizenship) (4) posture and body mechanics (or equivalent).  
(Fair tests = 1; good = 2; excellent = 3)      Score = 3
8. Students are not permitted to substitute clerical work, janitor work, towel dispensing, or piano playing, etc., in place of physical education class activity.  
(Score = 3)      Score = 3



9. Healthful living (health education instruction) is offered in concentrated instruction periods, in appropriate departments, in addition to co-ordinated health counseling in other departments. Classes meet in quiet, comfortable classrooms, not in locker rooms or on bleachers. (Equivalent of at least two hours per week for one semester in each level = 1; equivalent of five hours per week for one semester in each level = 2; equivalent of five hours per week for two semesters in each level = 3) (if substituted for an activity class = 0) Score = 1
10. Assignment to activity classes is based on age, physical condition, skill development, need, and interest. (Assigned at random according to free period = 0; by grades = 1; by medical diagnosis and grade = 2; by medical diagnosis and degree of development and skill, need and interest = 3) Score = 2

The total score obtained in this area was twenty-four points. This category scored second highest of the ten categories evaluated. Items 1, 2, 3, 6, 7, and 8 had perfect scores. The lowest scoring items were items 4 and 9. Item 4 was concerned with provisions for co-educational activities. Item 9 was concerned with the teaching of health and the surroundings in which health is taught. The mean score for the ten items was 2.4 points. The mode score for the ten items was three points.

X. Administration of Intramural and Interschool Athletics

Possible Score = 30; Actual Score = 6

1. Both intramural and interschool sports programs (for boys and girls) are budgeted and financed from school funds; and ticket selling for contests is discouraged or prohibited.  
(Partly financed, and sale discouraged = 1; fully financed, and sale to students prohibited = 2; fully financed, and public admitted free to contest = 3) Score = 2
2. Students are classified for competitive purposes on basis of three-point classification plan (or equivalent) in addition to medical examination, in order to reduce hazards and to minimize inequalities between opponents.  
(Fair classification = 1; good = 2; excellent = 3) Score = 1
3. Instruction, coaching, and officiating of athletics is handled by women instructors for girls, and by men instructors for boys, with close cooperation between the two in co-educational activities and joint sports days; use of athletic facilities is equitably divided between boys and girls.  
(Standards approximately met = 2; fully met = 3) Score = 2
4. Well-organized sports (play) days are staged periodically under trained and experienced leadership with major emphasis on carry-over types of sports.  
(Sports days for girls and boys separately = 2; both separate and joint sports days for boys and girls = 3) Score = 0\*

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\*Criteria applicable but not included in program; zero rating.

5. Interschool competition for girls (when conducted) is under strict supervision and control of well-trained women instructors, is conducted according to girls' rules; and is limited chiefly to interschool sports (play) days.  
(Standards approximately met = 2; fully met = 3)  
Score = 0\*
6. Noon-hour activities (where time is available beyond adequate period for unhurried eating) are carefully supervised and limited to modified sports of physiologically defensible types.  
(Fair organization and supervision = 1; good = 2; excellent = 3). (If no time available, score = 1)  
Score = 1
7. Interschool competition for boys is restricted largely to local leagues; without overnight travels; no state (or larger) championships; no post-season games, not over seven games in football season; not over sixteen games in basketball season; other sports with appropriate limits; and with from two to three weeks of preliminary practice first contest.  
(Standards approximately met = 2; fully met = 3)  
Score\*\*
8. Students are eligible for interschool competition only between fourteenth and nineteenth birthdays; for not more than four years in any one sport; and for not more than one major sport in a given semester or term.  
(Standards approximately met = 2; fully met = 3)  
Score = 0\*

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\*Criteria applicable but not included in program; zero rating.

\*\*Boys' criteria which do not apply to this study.

9. Interscholastic athletic policies are determined by school administrators and physical education instructors or by regularly constituted school athletic leagues; and game officials are selected from experienced school people as far as possible.  
(Mostly = 2; entirely = 3)                      Score = 0\*
10. School officials provide necessary traffic and safety protection to and from and during inter-school contests; and maintain school physician in attendance at all major athletic contests.  
(Standard approximately met = 3)                      Score = 0\*

The total score obtained in this area was six points.

This was next to the lowest scoring category of the ten areas rated. Zero ratings were given to items 4, 5, 8, and 10. The criteria were applicable but not included in the physical education program at Lincoln Junior High School. Item 7 was not rated because it was boys' criteria. The mean score for the ten items rated was .6 of a point. The mode score for the ten items was the zero rating.

## II. DISCUSSION

As can be seen from Table I, the greatest strength in the physical education program of Lincoln Junior High School is in the swimming pool score criterion. Organization and administration of the class program ranks second.

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\*Criteria applicable but not included in program; zero rating.

The greatest weaknesses in the program are in the areas of the modified-individual (corrective) activity and in the administration of intramural and interschool athletics. It should be noted that in the Kansas City, Missouri, school system there are no interschool athletics on the junior high school level.

All the other areas evaluated had scores ranging from nineteen points to twenty-three points. Four questions in this study applied only to the boys' program and, therefore, were not answered. Had these questions been answered, the investigator assumes the possibility of a higher score being attained. Because of the limitations of this study the total possible points for the Health and Physical Education Score Card Number II in regard to girls' physical education program is 288 points instead of 300 points. The actual score attained at Lincoln Junior High School was 191 points. The percentage score was 64 per cent.

Table II represents the area findings of a national survey of 2,648 schools in a 25-state region over a period of 4 years. This study was written by Dr. Karl Bookwalter. The range and mean score for each area was included in Table II. The mean score ranged from a score of 1.21 points up to 13.08 points. The two highest ranking areas were,

TABLE I

THE RESULTS OF THE TEN AREAS RATED ON THE HEALTH AND  
PHYSICAL EDUCATION SCORE CARD NUMBER II

Area	Possible Score	Actual Score	Per Cent of Possible
Program of Activities	30	23	76.66
Outdoor Areas	30	20	66.66
Indoor Areas	30	19	63.33
Locker and Shower Areas	30	22	73.33
Swimming Pool	30	30	100.00
Supplies and Equipment	30	20	66.66
Medical Examinations and Health Service	30	23	76.66
Modified-Individual (Correc- tive) Activities	30	4	13.33
Organization and Administra- tion of Class Programs	30	24	80.00
Administration of Intramural and Interschool Athletics	30	6	20.00
Total	300	191	. . .*

\*Percentage Score: Actual Score divided by 3 = 64%.



respectively, the organization and administration of class program (area nine) and the administration of intramural and interschool athletics (area ten). The lowest ranking areas were modified-individual (corrective) activities (area eight) and the swimming pool (area five). The next lowest area was the program of activities (area one).<sup>1</sup>

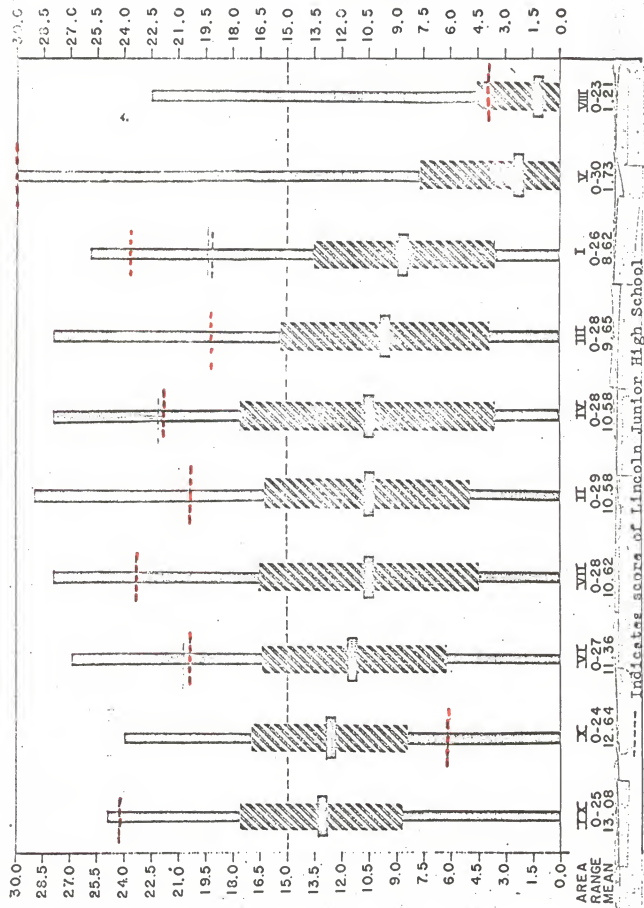
The scores attained at Lincoln Junior High School are indicated by the red broken lines (-----) in each area.

The data in Table III represent the comparison of area results of Lincoln Junior High School with the national survey. Lincoln's score in nine of the areas was above the national mean score. The greatest differences in scores occurred in the following areas respectively: the swimming pool, the program of activities, medical examinations and health service, the locker and shower areas, and in the organization and administration of class programs. The national mean score for the swimming pool was 1.73 points. Lincoln's score of 30 points was 28.27 points above the mean score. The swimming pool was the only area which had a perfect score at Lincoln Junior High School. This same area was the only area according to Bookwalter's study which had

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<sup>1</sup>Bookwalter, loc. cit.

TABLE II



HEALTH AND PHYSICAL EDUCATION SCORE CARD NO. II  
 AREA RANGES, MIDDLE 68 PER CENT, AND MEANS BASED  
 UPON 2648 SCHOOLS IN A NATIONAL SURVEY, 1950-1954.

a range from 0 to 30 points. The program of activities mean score was 8.62 points. Lincoln's score of 23 points was 14.38 points above the mean. The medical examinations and health service area had a mean score of 10.62. Lincoln's score of 23 points was 12.38 points above the national mean score. The locker and shower areas had a mean score of 10.58 points. Lincoln's score of 22 points was 11.42 points above the national mean score. In the area of organization and administration of class programs the mean score was 13.08. Lincoln's score of 24 points was 10.92 points above the mean.

Lincoln scored less than the mean score in the area of administration of intramural and interschool athletics. The national mean score in this area was 12.64 points. Lincoln's score of 6 points was 6.64 points below the mean. It should be noted that in the Kansas City, Missouri, public school system there are no interscholastic athletics on the junior high level. Interscholastic competition in junior high school is at the present time an issue of great controversy.

Lincoln averaged 11.96 points above the national mean in the first nine areas of the score card. The remaining area of administration of intramural and interschool

athletics averaged 6.64 points below the national mean of the score card. The investigator assumes the reasons for this broad disparity of results in making comparisons are as follows: (1) Lincoln has met the qualifications to be accredited as a "AAA" school. This rating is based on the standards established by the State Department of Public Instruction. (2) Lincoln is a relatively new school, having been placed in operation in 1956. (3) Due to ample budget allocation each year, the facilities and equipment are maintained at a relatively high level of adequacy. (4) Finally, the recent emphasis placed on physical fitness has resulted in expanded efforts toward improvement in physical education programs.

Table IV reveals the results of the national survey according to regions of the United States. These regions included the southwest, northwest, midwest, eastern, central, and southern divisions. The states included in these areas are listed. The range of scores and the middle 68 per cent of the range are shown.

In the central region, which includes the states of Colorado, Kansas, Missouri, Iowa, Minnesota, and Nebraska, the middle 68 per cent of the schools had a range in score from 58 points to 118 points. Some schools in the central

TABLE III

A COMPARISON BETWEEN THE AREA RESULTS OF LINCOLN  
JUNIOR HIGH SCHOOL WITH THE NATIONAL SURVEY

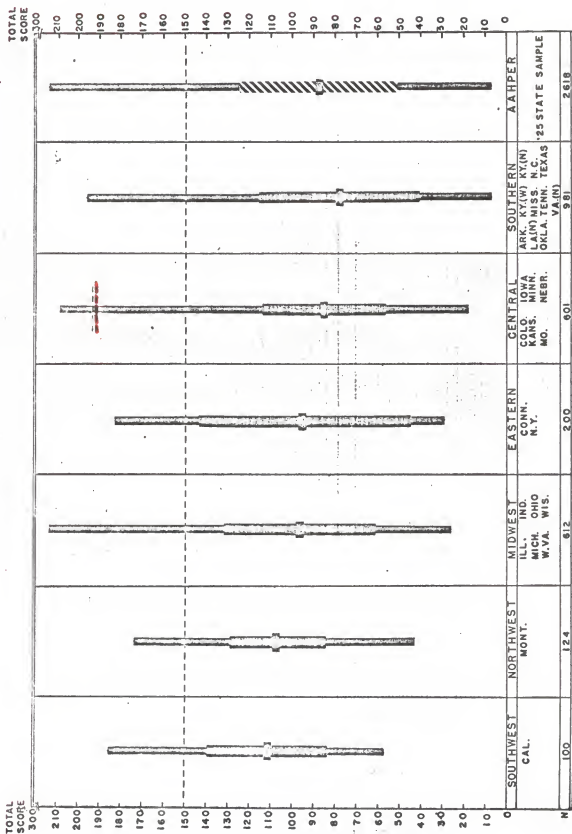
(Possible Score for Each Area = 30)

Area	Natl Mean	Lin- coln's Score	Above Natl Mean	Below Natl Mean
Program of Activities	8.62	23	14.38	. . .
Outdoor Areas	10.58	20	9.52	. . .
Indoor Areas	9.65	19	9.35	. . .
Locker and Shower Areas	10.58	22	11.42	. . .
Swimming Pool	1.73	30	28.27	. . .
Supplies and Equipment	11.36	20	8.64	. . .
Medical Examinations and Health Service	10.62	23	12.38	. . .
Modified Indoor (Correc- tive) Activities	1.21	4	2.79	. . .
Organization and Adminis- tration of Class Programs	13.08	24	10.92	. . .
Administration of Intramural and Interschool Athletics	12.64	6	. . .	6.64
Average Scores:			11.96	6.64

region had a range of scores from 19 points to 210 points. Lincoln's composite score on the score card was 191 points, 19 points less than the top range for the central region. The score attained at Lincoln Junior High School is illustrated by the red broken line (-----), on the top of results for the central region.



TABLE IV



AAHPER. DISTRICT MEANS AND VARIABILITIES IN TOTAL SCORE ON THE HEALTH AND PHYSICAL EDUCATION SCORE CARD NO. II, FOR 25 STATES, 1950-54.

----- Indicates score of Lincoln Junior High School

## SUMMARY, CONCLUSION, AND RECOMMENDATIONS

### I. SUMMARY AND CONCLUSION

According to the Health and Physical Education Score Card Number II, a school having a total of 100 points would be rated fair-minimum; 200 points would be rated good-average; and a score of 300 points would be rated superior-ideal. The score attained in the rating of Lincoln Junior High School was 191 points. This score placed the physical education program of Lincoln Junior High School nearer the rating category of a good-average program.

The greatest strengths in the physical education program of Lincoln Junior High School, according to the Health and Physical Education Score Card Number II, were in the rating areas of the swimming pool, the organization and administration of class programs, the program of activities, and medical examinations and health service. The greatest weaknesses in the program were in the areas of the modified-individual (corrective) activities and in the administration of intramural and interschool athletics.

The results of the national survey indicated the range of scores was from 2 to 71 per cent. Lincoln's rank was 64 per cent. This was 7 per cent less than the maximum

of the national range. Seventy-five per cent of the schools in each state ranked below the point median of the score card. The median of the score card was 150 points or 50 per cent of the total 300 points. The score attained by Lincoln Junior High School was greater than 50 per cent of the total possible. Therefore, Lincoln is included in the top 25 per cent of schools ranking above the national median.

## II. RECOMMENDATIONS

As a result of this study the investigator recommends that:

1. A study be made of the schools of Kansas City, Missouri, to determine what is being done in the physical education program in the area of modified-individual (corrective) activities.
2. This study should be utilized by the principal of Lincoln Junior High School and the physical education staff as a guide towards improvement of the physical education program.

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AN EVALUATION OF THE GIRLS' PHYSICAL EDUCATION  
PROGRAM AT LINCOLN JUNIOR HIGH SCHOOL

by

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B.S., Tennessee Agriculture and  
Industrial State University, 1958

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AN ABSTRACT OF A MASTER'S REPORT

submitted in partial fulfillment of the

requirements for the degree

MASTER OF SCIENCE

Department of Education

KANSAS STATE UNIVERSITY  
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1965



## ABSTRACT

The purpose of this study was to evaluate the girls' physical education program at Lincoln Junior High School, Kansas City, Missouri. This study was to serve as a guide in determining the strengths and weaknesses of the girls' physical education program at Lincoln Junior High School. It was also the intent of this study to give an objective evaluation of the significant weaknesses to be used as a basis for improving the physical education program at Lincoln Junior High School.

As a means of securing information for this study, a score card providing a comprehensive evaluation of the total physical education program was used. The score card contained ten parts and consisted of one hundred questions. The numerical rating score for each question ranged from zero to three points.

To secure essential information for answering the questions on the score card, the principal and school nurse were interviewed. The investigator's knowledge, as a physical education teacher at Lincoln Junior High School, was used. The card was checked by the investigator with assistance from the principal and the school nurse.

The composite score attained in the rating of Lincoln Junior High School was 191 points. This score placed the physical education program of Lincoln Junior High School nearer the rating category of a good-average program (200 points). The areas rating the highest score on the score card respectively concerned the swimming pool criterion and organization and administration of class program. The lowest area ratings concerned modified-individual (corrective) activities and the administration of intramural and interschool athletics. In comparing the area results of Lincoln Junior High School with the national survey, Lincoln's score in nine of the areas was above the national mean score.

The results of the national survey indicated the range of scores was from 2 to 71 per cent. Lincoln's rank was 64 per cent. This was 7 per cent less than the maximum of the national range. Seventy-five per cent of the schools in each state ranked below the point median of the score card. The median of the score card was 150 points or 50 per cent of the total 300 points. The score attained by Lincoln Junior High School was greater than 50 per cent of the total possible. Therefore, Lincoln is included in the top 25 per cent of the schools ranking above the 50 per cent national

median.

As a result of this study the investigator recommends (1) a study be made of the schools of Kansas City, Missouri, to determine what is being done in the physical education program in the area of modified-individual (corrective) activities and (2) this study be utilized by the principal of Lincoln Junior High School and the physical education staff as a guide towards improvement of the physical education program at that school.