

A STUDY OF PHYSICAL EDUCATION AS IT RELATES
TO CERTAIN UNDERPRIVILEGED BOYS

A THESIS

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A STUDY OF PHYSICAL EDUCATION AS IT RELATES
TO CERTAIN UNDERPRIVILEGED BOYS

A THESIS

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in Partial Fulfillment of the Requirements

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MASTER OF ARTS

By

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T. Cortemeglia

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CHAPTER I
INTRODUCTION

One of the difficult problems facing schools is the adjustment of underprivileged boys. Because of the lack of adjustment, they often drop out of school and out of tune with the social order in which they find themselves. Some of the objective evidence of the values of physical education shows:

(1) That participation in physical education activities stimulates growth; (2) that health education programs in schools influence the rate of gain in height and weight; (3) that physical education aids in correcting dysmenorrhea; (4) that there is a definite relationship between physical proficiency and scholastic achievement; (5) that participation in athletics is not detrimental to health or scholastic standings; (6) that physical education develops abilities and traits not dealt with by the traditional classroom subjects; (7) that programs of physical and health education improves posture; (9) that the most favorable opportunities exist in physical education for developing desirable character traits; (10) that unusual possibilities exist in physical education for affecting normal

personality adjustments.¹ In view of Brace's statements, is not the physical education department one of the best places in which the underprivileged boy may become accustomed to wholesome social contact with others of his own sex? Is not this association similar to the type of social contact with which he will be confronted in the future?

Meeker² believes that the school does not measure the success of the pupils as much in terms of academic achievement as in the development of interests, a willingness to try, a desire to get into trade training, and a disposition to act in terms of approved citizenship conduct.

Statement of the Problem

In this study, an attempt is made to solve some of the problems of a group of two hundred underprivileged boys who are taking physical education courses in Dow Junior High School in Houston, Texas. Proof that these boys are underprivileged is shown later in the study, when data obtained from an examination of their weight, teeth, home living conditions, financial opportunity, and intelligence are presented in detail. The problem is to provide entertainment

1 David K. Brace, "Some Objectives of the Value of Physical Education," Journal of Health and Physical Education, vol. IV, April, 1933, p. 38.

2 H. H. Meeker, "Experiment in the Adjustment of Retarded Children," National Elementary Principal, vol. XV, pp. 2-5.

that will take the place of picture shows, trips to camp, playground excursions, and so on, which are available to junior high school pupils of other schools, but which are unavailable to most of these boys, as well as to provide health-building physical education activities while they are on the school playground.

This study attempts to answer the following questions:

1. In what way will use of the Behavior Problem Record help correct the weaknesses of the underprivileged boys?
2. How will a study of the Socio-Economic Status of this group help to solve some of the conditions that exist?
3. How does poor health handicap these boys?
4. What is the range of the chronological age of these boys?
5. What advantage does the physical education department have for guidance work not offered by other departments of the school?
6. Why are there more social contacts in a physical education class than in academic classes?
7. What can the physical education department do to help the underprivileged boys meet their future problems?
8. In what way can the physical education department better the health conditions of the boys?

Limitations of the Study

This study has been made with two hundred boys of the Dow Junior High School of Houston as subjects. These boys

were chosen not only because they were typical underprivileged boys, but because of opportunities for close contact with them for three years, and access to records pertaining to these boys. There are fourteen junior high schools in the Houston school system. No junior high school except Dow Junior High School is located in a like neighborhood, that is, practically in the center of a business district. Others are located in wealthy residential districts, some in very poor residential areas, while others are in districts populated by well-to-do people. Parents of students attending Dow Junior High School are, as a whole, very poor.

This group of boys comes from a very small, compact neighborhood where varying social levels exist, a decadent residential section with business encroaching on the homes of long-established families. Homes have been converted into apartments and boarding houses, and these changes have caused conflicts between the more conservative families and the new groups because of their different ideals, traditions, and in some cases, language. With the shift in social status of the community comes a shift in economic status. The white collar worker, the owners of small businesses, the master tradesman, all who could, have moved to the newer part of the city. Moving in to take their places are the unskilled laborers, the W. P. A. workers, the families on direct relief and families of low-income foreigners. Thus, this district, roughly bounded by Heights Boulevard on the

west, by Spring Street on the north, Buffalo Bayou on the south and Milam Street on the east, has become crowded, unsanitary, and very similar to the conditions Cowen found in New York. He reported as follows:

The homes of the underprivileged children are often unhappy, immoral, unclean, poorly equipped and located in undesirable neighborhoods.³

Importance of the Study

Inasmuch as it is felt that the welfare of these boys could be improved by application of a special health and physical education program, which is set forth further in this work, this study has been made. Other local conditions which make this study of importance to the group concerned are these: The Dow Junior High School has no gymnasium, no swimming pool, a very small playground, and there are no recreation parks within two miles where boys of this group could find entertainment after school.

Review of Previous Studies

There have been similar studies made on underprivileged boys, but so far as can be learned, no such study has been made for Dow Junior High School; however, numerous related studies have been helpful in this study.

The program in physical education, while not carried on

3 P. A. Cowen, "The Social Adjustment of the Special Class Child," Journal of Educational Sociology, vol. V, p. 153.

continuously, has a history that extends back some twenty-seven or twenty-eight centuries. Staley⁴ says that the program now known as physical education was first introduced into the educational program by the ancient Greeks about the seventh century, B. C. The physical education program did not gain a secure foothold in the United States until 1885. It reached its height between 1910 and 1920. For the last fifteen years physical education has been included in our educational program. Many authorities believe that curricular and extracurricular activities are fundamentally different programs and should be handled separately. The curriculum is entirely a program of directing learning. Most, if not all, the leaders in the field today, favor and foster a program of sports of big muscle play activities for the physical education program.

Rathbone says:

A complete theory of health and physical education in the future must adopt as one of its supporting principles the idea that a beautiful and efficient body is well worth seeking and must search out every method for constructing or reconstructing a body as perfect as possible.⁵

Kilpatrick says:

Human relationship, social values, moral standards are intimately bound up and associated

4 Seward C. Staley, The Curriculum in Sports, pp. 51-55.

5 Josephine Langworthy Rathbone, Corrective Physical Education, p. 17.

with all the activities of physical education.⁶

Montgomery says:

Rather strong trend is found to increase the amount of time devoted to health and physical education in the core curriculum.⁷

6 W. H. Kilpatrick, What Range of Objectives for Physical Education, Teachers College Record, Sept., 1925, p. 28.

7 T. S. Montgomery, A Study of the Philosophy and Changing Practice in the Junior High School, Doctor's Thesis, University of Texas, p. 253.

CHAPTER II

CHARACTERISTICS OF UNDERPRIVILEGED BOYS

Purpose of this Chapter

The purpose of this chapter is to present characteristics of underprivileged boys as found in the Dow Junior High School, and to show the handicaps that produce these characteristics. This chapter will attempt to discuss the following characteristics of the boys in the Dow Junior High School.

1. Their behavior traits.
2. The socio-economic factors affecting them.
3. Their health with regard to teeth and weight.
4. Variation of their intelligence quotients from the normal.
5. Their chronological ages.

Behavior Traits

In order to determine the boys' behavior, the Haggerty-Olson-Wickman Behavior Rating Schedules were used. Since there is no satisfactory standardized terminology, it will be necessary to define certain terms used in discussing the schedules. The term "behavior problem" will be used to represent the discrepancy between the capacities of the individual to adjust himself, and the demands of his

environment. It follows from the definition that the question of what constitutes a behavior problem depends upon the environmental demands as well as upon the reaction possibilities--innate and acquired--of the individual. In using the schedules it is assumed that all of the boys are problem children because of their lack of ability to adjust themselves to the society that confronts them.

To use Schedule A, the teacher recorded on it the problems manifested during his experience with each boy. The frequency of occurrence of each problem determines the rating assigned. High scores indicate the presence of numerous and serious problems, while low scores indicate the presence of few and less serious problems.

The Behavior Problem Record, Table I, Schedule A, is a list of behavior problems which shows frequency of occurrence for each behavior trait, as reported for this group of two hundred boys in the Dow Junior High School.

Table I indicates that only fourteen of these boys have never shown a disinterest in school. Twenty-four have never played truant from school, while seventy-five frequently do. Seventeen of these boys are never unnecessarily tardy, whereas seventy are frequently tardy.

One boy frequently steals, eleven frequently cheat, and ten frequently lie.

Ten of these boys have frequently resisted discipline, thirty have had some disciplinary troubles and one hundred

TABLE I
BEHAVIOR PROBLEM RECORD
SCHEDULE A

	Frequency of Occurrence				Number of Cases
	Never	Once or Twice	Seldom	Frequent	
Disinterest in school work	14	99	54	33	200
Truancy	24	52	49	75	200
Unnecessary Tardiness	17	74	39	70	200
Cheating	103	70	16	11	200
Lying	85	74	30	10	200
Imaginative Lying	76	92	20	12	200
Stealing	174	20	5	1	200
Defiance to Discipline	160	20	10	10	200
Unpopular With Children	112	72	10	6	200
Temper Outbursts	171	11	8	10	200
Bullying	157	25	6	12	200
Marked Over-activity	113	76	2	10	200
Speech Difficulties	65	52	15	68	200
Sex Offenses	191	5	2	2	200
Obscene notes, talk or pictures	62	95	25	18	200

sixty have never had trouble pertaining to discipline.

Sixty-eight of these boys are afflicted with recurring speech difficulty. Only sixty-five never have been afflicted with this trouble.

To explain the meaning of the term "speech difficulty" as here used, it might be pointed out that twenty-five of the boys stutter, seventeen have difficulty with their speech because they are of foreign extraction, while twenty-six have difficulties because of miscellaneous reasons, such as low mentality, nasal conditions, and so forth.

Table II, the Behavior Rating Scale, Schedule B,¹ consists of scores and frequencies that were made on the Behavior Test. In this table the high scores show that the boys have numerous undesirable qualities. The low scores show presence of desirable qualities. The test from which these scores were obtained is Schedule B of the Haggerty-Olson-Wickman Behavior Rating Schedules. It consists of thirty-five items designed to measure intellectual, physical, social and emotional traits. Below the scale of each trait appears five descriptive phrases put there to assist the rater in making a quantitative judgment. Schedule B covers personal characteristics in a rather wide variety of traits, regardless of whether or not the behavior described would be called a behavior problem.

1 Appendix

The makers of this test in their manual of instruction, state that its use allows one to intelligently predict the measure of future success likely to be enjoyed by the pupil who has been classified through its use. The test, covering intellectual, physical, social, and emotional, traits of the individual, indicate roughly the major fields of maladjustment, as seen through the eyes of a person closely acquainted with the boy.

Referring to Table II, it will be seen that there were four boys with scores ranging from one hundred twenty to one hundred thirty-four. Through personal observation, it is known that these four boys were often involved in disciplinary infractions, such as being unsociable, cursing before girls, fighting in class, bullying other boys, often playing truant, cheating, and stealing. All four had an intelligence quotient below seventy-five.

On the other hand, the five boys with scores ranging from fifty to fifty-four were all A students. They took part in numerous extracurricular activities, serving as monitors, safety patrolmen, class captains, and in other capacities.

The median score of Dow Junior High School boys in the Behavior Rating Scale is seventy-five and sixty-nine hundredths, whereas the Haggerty-Olson-Wickman median for the same scale is sixty-eight and eighty hundredths, which shows that Dow Junior High School boys cause more trouble

TABLE II
DISTRIBUTION OF TOTAL SCORES ON BEHAVIOR RATING SCALE
SCHEDULE B

Scores	Frequency
130-134	1
125-129	1
120-124	2
115-119	9
110-114	5
105-109	5
100-104	5
95- 99	5
90- 94	12
85- 89	15
80- 84	15
75- 79	29
70- 74	16
65- 69	34
60- 64	18
55- 59	23
50- 54	5

Number	200	Median	75.69
Mean	78.25	S. D.	17.85

than normal children.

One is nor warranted, however, in regarding the score as a final conclusion, giving the individual an inescapable classification. The rating may point out the need for some adjustment of school conditions, for changes in the behavior of teachers, for modifications of the curriculum, or for the adjustment of other disturbing environmental factors.

Socio-Economic Status

The Sims Score Card For Socio-Economic Status, Form C, was used in determining the socio-economic status of the boys in the Dow Junior High School. The results are shown in Table III. Thirty-one of these boys do not live with their parents. They either live in an institution, with a relative, or with an adopted parent. Only sixty-five of these boys have a telephone in their homes. One hundred twenty-three of these boys said that their family shares a bathroom with another family or families. Only seventy-seven of these boys' families have a bathroom for their private use. One hundred eighty-eight of these boys do not have a bank account in their own name.

The education of these parents is very poor. The fathers of one hundred seventy-seven of these boys never attended college, and the mothers of one hundred eighty-six of these boys never attended college. The fathers of one hundred sixty-five of these boys never attended high school and the mothers of one hundred seventy-one of these boys never attended high

TABLE III
SOCIO-ECONOMIC STATUS
FORM C

	Yes	Per Cent	No	Per Cent
Are you living with your parents	169	84	31	16
Are you living in the house with some one else, such as a relative, adopted parent, guardian, etc.	15	7.5	185	92.5
Are you living in an institution such as an orphan asylum or a home for children	16	8	184	92
Have you a telephone in your home	65	33	135	67
Is your home heated by a furnace in the basement	1	1	199	99
Do you have a bathroom that is used by your family alone	77	38	123	62
Do you have a bank account in your name	12	6	188	94
Did your father go to college	23	12	177	88
Did your mother go to college	14	7	186	93
Did your father go to high school	35	17	165	83
Did your mother go to high school	29	14	171	86
Does your mother (or the lady of the home in which you live) regularly attend lecture courses of which you know	6	3	194	97

school.

Parents of many children improve their education and understanding of school problems by attending Parent Teacher Association meetings, lectures, or even night school classes. However, only six Dow Junior High School boys of this group said their guardians or parents were in any way attempting to improve their education. That so few of the guardians of these boys are trying to advance their knowledge and understanding would naturally mean, then, that home-instruction, guidance, and counsel must be exceedingly limited by comparison with opportunities enjoyed by the average student.

Tables IV to XIII inclusive give further insight into the socio-economic status of these boys.

TABLE IV
RESIDENCES OF BOYS IN SUMMER

Where do you regularly spend your summers?	Home	On Farms	In Camps	Other Resorts
Answers	125	35	13	27

Table IV shows that one hundred twenty-five, or over half of this group, spent their summers at their homes, that is, in this industrial center of Houston. The remainder sent either to farms, boys' camps, or vacation resorts. It might be pointed out here that the thirteen who

went to camp did so by virtue of having won various circulation contests open to newsboys.

TABLE V
DENTAL CONDITIONS OF BOYS

How often do you go to the Dentist?	Never	Seldom	Once a year
Answers	109	81	10

Table V indicates that one hundred nine of these boys never go to the dentist. Only ten go once a year.

TABLE VI
READING MATERIAL AVAILABLE AT HOME OF THE BOYS

How many magazines are regularly taken in your home?	None	One	Two or more
Answers	105	90	5

Of this group of boys, according to Table VI, one hundred five admitted that no magazines regularly reached their homes. Ninety said their parents received only one magazine per month, and five said two or more magazines came regularly to their homes. When the survey upon which Table VI is based was made, over half the boys in this group of

ninety asked if "comics" would be considered as magazines. The writer decided that a "comic" would be considered as being a magazine.

TABLE VII
DAILY PAPER IN HOMES

How many daily papers come to your home?	None	One	Two or more
Answers	135	62	3

Table VII shows that one hundred thirty-five of these boys do not have a daily paper coming into their homes. Three of these boys have two daily papers.

TABLE VIII
NUMBER OF ROOMS OCCUPIED BY FAMILY

How many rooms does your family occupy?	2	3	4	5	6 or more
Answers	59	84	35	15	7

Table VIII shows that over half of these boys live in homes with only two or three rooms.

TABLE IX
TWO ROOM HOMES

2 rooms - how many people occupy these rooms?	2	3	4	5	6 or more
Answers	8	10	20	15	5

Reference to Table IX shows that of the boys whose families live in two rooms five have six or more persons occupying these rooms; while fifteen have five persons occupying the rooms.

TABLE X
THREE ROOM HOMES

3 rooms - how many people occupy these rooms?	2	3	4	5	6 or more
Answers	3	17	30	20	16

Table X shows that of the boys whose families live in three rooms, sixteen have six or more persons occupying the rooms and twenty have five persons occupying the rooms.

TABLE XI
FOUR ROOM HOMES

4 rooms - how many people occupy these rooms?	2	3	4	5	6 or more
Answers	1	2	15	12	15

Table XI shows that of the families living in four-room houses, fifteen have six or more persons occupying the rooms.

TABLE XII
FIVE ROOM HOMES

5 rooms - how many people occupy these rooms?	2	3	4	5	6 or more
Answers	1	1	2	4	7

In the homes of seven boys there are six or more persons occupying five rooms. In one case there are two persons occupying five rooms.

TABLE XIII
SIX ROOM HOMES

6 rooms - how many people occupy these rooms?	3	4	5	6 or more
Answers	1	1	2	3

In the homes of three boys there are six or more people occupying six rooms. In one case there are three people and another case shows there are four people occupying six rooms.

The home room teachers' reports show that one hundred sixty-two, or eighty-one per cent, of those in Dow Junior High School are employed in part-time jobs to help support themselves and their families. Their major occupations were selling papers, peddling vegetables from door to door, and shining shoes. Often these jobs were performed very early in the morning, late at night, and during rainy and cold weather. Absence reports showed that many of these boys had insufficient clothing. Welfare workers' reports showed that many boys did not have sufficient food.

Intelligence Rating

Intelligence tests were given at the beginning of the school year of 1940-41, by the guidance committee in the Dow Junior High School. The Otis test was used.

Table XIV indicates the distribution of intelligence quotients for this group of two hundred boys in the Dow Junior High School. Since one hundred is accepted as the intelligence quotient of the average person, this table indicates that this group of boys is below the average. The mean is eighty-five and fifteen hundredths; while the median is eighty-five and four tenths. The intelligence quotients range from forty-five to one hundred twenty-nine.

General Health and Physical Status

Using the Baldwin-Wood Table of Weight, Height, and Age for boys of school age, it would appear that this group of boys, as a whole, is underweight. For purposes of comparison, Table XV has been constructed. It segregates this group of two hundred according to their height and weight at various ages. The first vertical column shows the height in inches of the boys. The second vertical column shows Baldwin and Wood's estimate of what the average weight of all normal boys between the ages of eleven and nineteen years should be, as related to their height. The third column shows the average weight of the boys of the Dow Junior High School group between the ages of eleven and nineteen years.

Because the Baldwin-Woods table does not show what the normal weight is for boys less than forty-nine inches tall, the writer has no basis for comparison of the weights of ten boys in the group less than forty-nine inches tall.

TABLE XIV
INTELLIGENCE QUOTIENT

Scores	Frequency
125-129	1
120-124	4
115-119	3
110-114	10
105-109	11
100-104	12
95- 99	12
90- 94	22
85- 89	28
80- 84	27
75- 79	19
70- 74	13
65- 69	15
60- 64	8
55- 59	8
50- 54	4
45- 49	3

Number 200 Median 85.4

Mean 85.15 S. D. 16.9

TABLE XV
AVERAGE WEIGHT IN POUNDS FOR
HEIGHT, ALL AGES

HEIGHT IN INCHES	BALDWIN-WOODS AVERAGE WEIGHT IN POUNDS FOR HEIGHT, ALL AGES	DOWN AVERAGE WEIGHT IN POUNDS FOR HT., ALL AGES	11 YRS.		12 YRS.		13 YRS.		14 YRS.		15 YRS.		16 YRS.		17 YRS.		18 YRS.		19 YRS.	
			NUMBER	POUNDS	NUMBER	POUNDS	NUMBER	POUNDS	NUMBER	POUNDS	NUMBER	POUNDS	NUMBER	POUNDS	NUMBER	POUNDS	NUMBER	POUNDS	NUMBER	POUNDS
45	*	48	1	48																
46	*	50			1	50														
47	*	52	1	48	3	51	4	57												
48	*																			
49	55																			
50	58	55			6	52	1	55	5	58										
51	61	57			3	53	5	54	3	56	6	57	1	65						
52	64																			
53	68																			
54	71																			
55	74	64					20	63	8	65										
56	78	67							10	66	9	68								
57	82	70											4	70						
58	85																			
59	89																			
60	94	85					10	80			10	83					1	92		

(continued)

* The Baldwin-Woods table does not give an average weight below forty-nine inches

TABLE XV
(continued)

HEIGHT IN INCHES	SALVIN-WOODS AVERAGE WEIGHT IN POUNDS FOR HEIGHT, ALL AGES	DOV AVERAGE WEIGHT IN POUNDS FOR HT., ALL AGES	11 YRS.		12 YRS.		13 YRS.		14 YRS.		15 YRS.		16 YRS.		17 YRS.		18 YRS.		19 YRS.	
			NUMBER	POUNDS	NUMBER	POUNDS	NUMBER	POUNDS	NUMBER	POUNDS	NUMBER	POUNDS	NUMBER	POUNDS	NUMBER	POUNDS	NUMBER	POUNDS	NUMBER	POUNDS
61	90	88							12	85	5	87					2	92		
62	104	91							3	90	10	92								
63	111																			
64	117																			
65	123	117									18	114	3	120						
66	129																			
67	133	125											10	125						
68	139	133													5	133				
69	144																			
70	147	138											1	135	1	141				
71	152	147											3	143	1	148	5	150		
72	157	159											2	159						
73	163	169											3	168					1	171
74	169	201											1	200					2	202

However, there were twelve boys in the Dow Junior High School group fifty inches tall. Those who were twelve years of age averaged fifty-two pounds in weight; those thirteen years of age averaged fifty-five pounds in weight; those fourteen years of age averaged fifty-eight pounds in weight. Thus, the average weight of all these boys who were fifty inches tall was fifty-five pounds. The Baldwin-Woods average, or the normal weight for boys of this same height, was fifty-eight pounds.

As they grow taller, the difference in the average weight of the normal boy and that of the Dow Junior High School group becomes greater until, when the height of fifty-five inches is reached, the average weight of the Dow Junior High School boys is sixty-four against an average of seventy-four pounds for the normal boy.

At fifty-seven inches in height, the difference of the Dow Junior High School boys from the normal weight is greatest. At that height, four Dow Junior High School boys averaged seventy pounds in weight; the average boy of that height weighs eighty-two pounds. Thus, the four Dow Junior High School boys were twelve pounds underweight.

The Dow Junior High School boys seventy-one inches tall were five pounds underweight, but Dow Junior High School boys seventy-two inches tall averaged one hundred fifty-nine pounds whereas Baldwin-Woods gave the normal weight for this height as one hundred fifty-seven pounds.

At seventy-four inches in height, according to the table, the average weight should be one hundred sixty-nine pounds. The Dow Junior High School average was two hundred one pounds, an overweight difference of thirty-two pounds. This exception was caused by the fact that two of the Dow Junior High School boys, averaging two hundred two pounds in weight, were nineteen years of age. Because they were subnormal in intelligence, the boys were still in junior high school.

The information concerning the condition of the teeth of these boys was obtained from the record kept by the school nurse. Table XVI indicates the unsatisfactory condition of the teeth of these underprivileged boys. Much time is taken from the physical education classes as well as other classes because of toothaches and other diseases caused by poorly-cared-for teeth. This table indicates that the teeth of only ten boys were checked as perfect.

Of this group, ninety-five per cent had teeth badly in need of cleaning; eighteen per cent had temporary teeth in need of care; sixty-seven per cent had defective permanent teeth; eight per cent had defective six year molars; ten per cent had crooked teeth; seventeen per cent had inflamed gums; twenty per cent had abscesses.

TABLE XVI
CONDITION OF THE TEETH

Teeth Need Clean- ing	Defec- tive Tempo- rary Teeth	Defec- tive Perma- nent Teeth	Defec- tive Six Year Molars	Crooked Teeth	Inflam- ed Gums	Absces- ses	Per- fect
190	37	133	15	20	34	41	10
95%	18%	67%	8%	10%	17%	20%	5%

Age Distribution

The chronological ages of this group were secured by having the students give their exact age before September 1, 1940. The usual junior high school average age range is between eleven and fourteen years. Table XVII indicates that the mean of this group of boys is fourteen and fifty-four hundredths. The age range of this group is from eleven to nineteen years. Two boys are eleven years old; whereas three boys are nineteen years old.

TABLE XVII
CHRONOLOGICAL AGE

Age	11	12	13	14	15	16	17	18	19
No. of Cases	2	13	40	41	58	28	9	6	3

Number 200 Median 14.57

Mean 14.54 S. D. 1.54

Summary

The more noticeable findings of this chapter are as follows:

1. The Behavior Rating Scale, Schedule A, shows that many of these boys are problem children of the school and community in which they live.
2. The Behavior Rating Scale, Schedule B, shows that Dow Junior High School boys are less tractable than the average lad.
3. The majority of the boys of the Dow Junior High School of Houston are handicapped, some living in institutions other than their homes, others having no telephones in their homes, and many having parents who have had little or no higher education.
4. As a result of large families living in small houses with few modern conveniences, the home conditions of these boys are inadequate.
5. A large percentage of these boys have no opportunity for broadening their lives through reading books, magazines, and newspapers.
6. Their intelligence quotients range from forty-five to one hundred twenty-nine. The mean intelligence quotient is eighty-five and fifteen hundredths.

CHAPTER III

A SUGGESTED PHYSICAL EDUCATION PROGRAM

Purpose of this Chapter

The purpose of this chapter is to provide an elastic physical education program which will allow each boy to participate in the play and activity program. This program also should help each boy to find and adjust himself to the school program as well as to the physical education program. It is also the purpose of this chapter to set up a physical education program fitted to the inadequate school playground, as well as a program which will provide activities which may be indulged in by one or more boys in their own backyards.

This special program is necessary because the Dow Junior High School playground is small, only two hundred seventy-five feet long by ninety feet wide. The playground is crowded with two volleyball courts, one basketball court, three badminton courts, and one softball diamond. In order to play softball, poles on these courts must be removed.

The school also has access to a large room in the basement where rainy day activities may be engaged in.

Unfortunately, the nearest recreation center available for these boys to use after school or on holidays is two miles away.

This proposed program which may be indulged in by one or more boys in their backyards is also fitted to the inadequate school playground.

In this chapter it is proposed to answer the following questions:

1. Can these boys' health be improved through the use of this program?
2. What type of program can meet the needs of these handicapped boys?
3. How should these boys be grouped in class?
4. What types of games are needed for these boys?
5. What equipment is needed for this program?
6. How can this equipment be paid for?

Health

The first function of this program will have to do with improving the health of the children. As has been shown by Table XVI of Chapter II, the teeth of the larger number of these boys are in bad condition, in need of cleaning, straightening, and filling.

Therefore, it is the duty of the physical education teacher to check with the school nurse and school doctor to see which of the boys are suffering. His duty will then be to influence the boys in taking advantage of the free health aids offered children of parents unable to pay for this service.

In setting up this program, one day a week shall be set aside for the teaching of health principles in the physical education program. This teaching should cover first aid administration with the more capable pupils being allowed to aid the teacher in administering first aid. Other subjects which should be covered in an elementary fashion would be treatments of colds, care of the skin, sanitation, care of the teeth, proper nutrition, and safety measures both on and off the playground.

It is believed as a result of personal observation that these boys often express themselves to their coach or physical education teacher much more intimately than they will to any other teacher of the school. As has been shown by the Baldwin-Woods Table in Chapter II, many of these boys are underweight. The writer has found many cases where undernourished children could have received noon lunches free at the cafeteria but because they were too bashful or ignorant to ask for this nourishment, they were not receiving it.

This program will, therefore, require that the teacher gain an intimate knowledge of his charges, that where he finds a boy suffering from insufficient nourishment, he transfer him from some such big muscle activity as touch football to a less strenuous activity as pitching horse-shoes. He will then go further and arrange to have the boy secure free meals at the cafeteria at lunch time, by

having the welfare committee of the school investigate his home conditions.

To point out one actual incident, one day a boy was seen taking no part in a game of touch football. He was asked why he was shirking and the boy replied that he was hungry and exhausted, that he had only the money earned selling newspapers the night before to use in buying food and that the night before sales had been bad. This condition was alleviated after a conference of the welfare committee concerning the boy's condition.

Sickness, as well as improper diet, may cause students to be underweight and this program presupposes that the physical education teacher will investigate all cases in order to determine and to remedy if possible, such conditions.

For instance, one lad complaining of sickness was questioned as to what he had eaten. For breakfast, it had been a bowl of chili; for supper the night before, the meal was the same, likewise dinner the day before had been chili. Evidently his parents did not realize the importance of varying the diet of this youngster.

Other lads do not realize the importance of regular eating and refuse to bring their lunches because of the bother, preferring to wait until they return home in the afternoon to eat. If they realized the value of regular meals, (and the physical education teacher certainly would,

under this program, attempt to show them the fallacy in their actions) a condition such as this could largely be obviated.

Another thing that has been noticed is that many boys take insufficient time to eat, not realizing that hard play immediately following improper mastication of their lunch is not conducive to health. This program will, therefore, withhold playground material at noon for at least fifteen minutes, during which time the boys can properly consume their lunches.

Grouping the Boys

Teachers and supervisors find the problem of pupil placement one of the most difficult situations which they have to face. Chronological age and physical size are the two pupil characteristics used most frequently in the grade placement. Sharman¹ says that the physical education classes should be arranged first, and the academic courses arranged around the physical education program. If this were the case with boys of Dow Junior High School, the boys could be classified for physical education classes according to their classification in school. Then each class would be about the same size, ability, and age.

This condition is seldom found, however, because of

1 Jackson R. Sharman, Introduction to Physical Education, pp. 236-237.

various factors, such as the physical education program being in charge of part-time, untrained physical education teachers, or through lack of organization of the school curriculum by the administrator, or because of the lack of proper facilities.

Pupils who are approximately alike in their chronological age, educational achievement, mental, social, and moral development should ordinarily be placed together for instructional purposes.²

At Dow Junior High School, groups mixed indiscriminately as to age, size, and school advancement are sent each period for their physical education training. Were no plan followed, the big, fast, well trained boys in good health would be allowed to become as violent as they pleased with younger, smaller, and less active boys. This would, of course, afford no special stimulus to the handicapped youngsters to play zealously; in fact, many might be injured.

Therefore, the tentative plan calls for a grouping together of big boys, of smaller boys, and of boys below normal mentality. This plan also supposes that these different groups will be given games suitable to their capacities. Further in this study, a variety of games has been outlined, from which suitable ones can be chosen to fit

2 Harry A. Greene, The Use and Interpretation of Tests, p. 50.

the various groups.

Under this plan, smaller pupils will be grouped with larger boys only if the smaller boys have abilities which permit their meeting the larger boys on even ground.

This plan, therefore, should in the above respect meet with Nash's³ definition of the purpose of classifying pupils: for safety, equalization of ability, and universal participation.

Every teacher knows that the instructional problems within the class are greatly increased when the range of ability is wide. Therefore, in the placement of pupils, individuals who are able to progress at approximately the same rate will be grouped together.⁴

When grouping according to size and ability has been completed, the teacher should allow the results of the Behavior Rating Scale, Schedule A and Schedule B, to help decide the final grouping. These groups should be arranged so that each group will have leaders possessing interest, organizational ability, sportsmanship, pride, rivalry, scholarship, and energy. If each group has a leader possessing the above traits, each will be a well-rounded group. With such student leadership, the problem-students will largely be taken care of by the students rather than

3 J. B. Nash, The Administration of Physical Education, p. 291.

4 Bird T. Baldwin, The Physical Growth of Children, p. 118.

by the teacher.

In a democracy the ideal is to provide an educational opportunity for each individual to develop whatever talents he has been endowed with to the highest possible degree.⁵

Therefore, this program will break down the group into squads. Each squad will have between eight and ten boys in it, because with a group this size, practically any game can be played. Each group shall select a team to compete with teams from other groups. All intramural games will, if possible, be played after the regular school hours. These games should interest the entire school, promote school spirit, and encourage the boys themselves. These games should be scheduled in advance so that the students and faculty can make arrangements to attend.

Special emphasis will be given activities which can be carried on by the pupils after they have graduated, such as badminton, volleyball, ping-pong, and handball. In this case the emphasis will consist in making sure that all in the group are closely familiar with these games.

The after-school program is an integral part of the physical education program. It may be an outgrowth of the regular classwork or it may be developed through activities

5 Clark W. Hetherington, School Program in Physical Education, pp. 16-19.

entirely outside of the regular physical education curriculum.⁶ This program sets up two hours daily, from three p. m. to five p. m., when boys of the group can play any game they choose.

Games

Sharman says:

The number of activities included in the program must be relatively small so that a few valuable activities may be taught intensively, rather than treating many activities superficially.⁷

In preparing a suitable list of games, individual differences, the season of the year, the weather conditions, and the capacity of the school playground should be considered.

The age of the boy plays an important part in selecting and choosing the game he shall play. Williams⁸ says that from the age of eleven to nineteen years active games and outdoor athletics should be engaged in.

Nash,⁹ Staley,¹⁰ and Sharman¹¹ are also in agreement

6 J. H. Clark, "As It is--In the Junior High School," Journal of Health and Physical Education, vol. IX, p. 98.

7 J. R. Sharman, Introduction to Physical Education, p. 13.

8 J. F. Williams, Principles of Physical Education, p. 74.

9 J. B. Nash, The Administration of Physical Education, p. 306.

10 Seward C. Staley, The Curriculum in Sports, p. 44.

11 J. R. Sharman, op. cit., p. 179.

that the curriculum should consist of big muscle activities.

Below is a list of games for use in this suggested program for the Dow Junior High School;

I. Fall Season

- A. Playground ball
- B. Box hockey
- C. Badminton
- D. Volleyball
- E. Handball
- F. Calisthenics
- G. Horseshoe and washer pitching

II. Winter Season

- A. Basketball
- B. Tumbling
- C. Polo tennis
- D. Box hockey
- E. Calisthenics
- F. Boxing
- G. Horseshoe and washer pitching

III. Spring Season

- A. Softball
- B. Badminton
- C. Volleyball
- D. Track
 - 1. Dashes
 - 2. Relays

- E. Polo tennis
- F. Box hockey
- G. Horseshoe and washer pitching
- H. Calisthenics

TABLE XVIII
TENTATIVE PLAY PROGRAM FOR ONE SIX-WEEK
PERIOD IN THE FALL

GROUPING	G A M E S		
	First Two-Week Period	Second Two-Week Period	Third Two-Week Period
Large boys	Softball	Badminton	Volleyball
Small boys	Box Hockey	Handball	Softball
Non-athletic type boys	Horseshoes	Volleyball	Box Hockey

Table XVIII pictures a tentative program for one class through a six-week period in the fall season. The table shows that the boys have been grouped as large, small, and non-athletic, or the type whose coordination renders even average performance impossible. Because of inherent conditions of the playing field, certain sports must be alternated; thus, during the first two-week period, the smaller boys will play box hockey, while the larger boys will use the softball field. Meanwhile the poor students will be engaged in pitching horseshoes, an activity requiring little maneuvering or strenuous activity. In the

second two-week period, the large boys will play badminton; the smaller boys handball. Because of the inadequate facilities, the handball players are forced to use the end of a building as the sole wall of their court. In this same period, the incompetent boys will be engaged in volleyball, that court being free and volleyball not being too strenuous an activity for them. In the third period, the large boys will play volleyball, the small boys will have the use of the softball court for playground ball, and the incompetent athletes will be engaged in box hockey, an activity suited to their capacity.

One reason for rotating sports as above is that, if allowed to choose their games, many boys will play one game to the exclusion of all others. When this happens, some phases and values inherent in a rounded big muscle activity program are lost.

The following list consists of games to be offered on rainy days, since inclement weather will at times necessarily prohibit use of the playground:

1. Table tennis
2. Boxing
3. Wrestling
4. Tumbling
5. Parlor games

These games will be carried on in a basement room which is available.

If a boy has a doctor's excuse to show that he is not

physically fit to take strenuous exercise, some activity must be provided for him. In this case, this program will provide for other games, such as checkers, dominoes, and chess. Such students will also take part in all health programs, since there is no excuse for his not so doing.

Equipment

Following is a list of material and equipment necessary for carrying on this program:

1. One dozen baseball bats
2. One set of bases
3. One dozen fourteen inch baseballs¹²
4. One catcher's mask
5. One catcher's mitt
6. One first base glove
7. One chest protector
8. Two basketball goals
9. Four basketballs
10. Four badminton nets
11. Thirty-two badminton paddles
12. One dozen shuttle-cocks
13. Two volleyball nets
14. Three volleyballs¹³

12 J. F. Williams, Principles of Physical Education, p. 338.

13 J. R. Sharman, Introduction to Physical Education, p. 150.

15. Seven ping-pong tables
16. Seven ping-pong nets
17. Twenty-eight ping-pong paddles
18. Two dozen ping-pong balls
19. Five sets of horseshoes
20. Five sets of washers
21. Four mats for tumbling and wrestling
22. Two sets of ten ounce boxing gloves
23. Five, four feet by eight feet, boxes for box hockey
24. Ten hockey sticks
25. Five sets of chess
26. Two sets of checkers
27. Ten polo tennis paddles
28. One dozen tennis balls
29. Rule books for all games
30. One repair kit for athletic equipment
31. One motion picture projector for teaching health and games (films can be secured from the school library)
32. Score books for all games

Summary

This chapter suggests a physical education schedule which should help the boy to better adjust himself in school and in his future social world.

1. This plan should entice these underprivileged boys to participate in numerous health-making activities.

2. This plan should aid this group of Dow Junior High School boys to acquire and to put into practice correct health and living habits.

3. This plan provides for grouping the boys to avoid injuries and to give them greater incentives to practice physical education.

4. This plan provides a variety of games, some of which are practicable for large boys, some of which are profitable for small boys, some of which are available to athletes below average in performance. It provides games which are suited to seasonal change; games suited to weather conditions. It also provides for boys who are physically unfit for strenuous athletic participation.

5. An illustration of the functioning of this program through one six-week period is made, showing how games would be rotated to secure full benefit of limited playing quarters.

6. A rainy day program is set up.

7. A list of equipment necessary for playing the suggested games is made.

CHAPTER IV

CONCLUSIONS AND RECOMMENDATIONS

Summary

Boys of Dow Junior High School in Houston, Texas, commit more infractions of discipline than do average boys, their mean score being seventy-eight and twenty-five hundredths against a mean score of seventy-two and four tenths for the average boy. Their socio-economic status is relatively poor because of the following reasons: one hundred sixty-two of the two hundred boys must do part-time work to help support themselves and their parents; one hundred five of the boys receive no magazines regularly in their homes; one hundred forty-three occupy homes of only two or three rooms; their mean intelligence quotient is eighty-five and fifteen hundredths; one hundred twenty-five stay at home through the summer; one hundred nine have never gone to the dentist and one hundred ninety had one or more teeth defects; one hundred eighty-one or ninety and five tenths per cent are under the average weight for boys of similar height.

This study sets up a physical education program especially suited to the needs of these boys. This program attempts to rotate all games played so that small, big, and incompetent boys may have pleasant activities at all times.

This program attempts to utilize all of the limited playing field area of Dow Junior High School by dividing the boys into groups of like size and ability and then scheduling games suitable for each group. This program has sufficient variety of games to allow all boys to find games they like and are especially fitted for. This program attempts to prevent injury, attempts to provide games for inclement weather, and for boys who are unfit for active participation in athletics. This program lists the games thought suitable and the equipment that will be necessary for carrying them out. This program also sets up a two-hour after-school free activity program when boys can engage in games they prefer; this program provides one day per week for giving various types of health instruction. It is also made obligatory that the instructor be alert in detecting sickness and undernourishment among his charges and that he take the necessary steps to combat this condition. This program also provides for special instruction in games to be played out of the school.

Conclusions

Because of the socio-economic status of the boys of Dow Junior High School, it is concluded that a health program is necessary, one which not only provides games especially suited to the limited playground capacity of Dow Junior High School and instruction in health, but a

program which also includes "missionary work" by the physical education teacher among the boys whereby he shall determine physical, mental, and moral matters that further contribute to the generally unhappy conditions of the greater portion of these boys.

Recommendations

In view of the findings in this study relative to the inadequacy of the regular playground, it is suggested that the school purchase more land for use as playgrounds. If such land is unavailable, possibly streets surrounding the school could be closed to automobile traffic during school hours and be used for playgrounds. It is also recommended that a gymnasium be built so that this suggested program can better be carried out in cold and rainy weather. Dow Junior High School is the only school in the City of Houston now lacking a gymnasium.

BIBLIOGRAPHY

Books

- Anderson, Lenora, Physical Education and Training, Barnes Publishing Company, New York, 1927.
- Baldwin, Bird T., Physical Growth of the Child, D. Appleton and Company, New York and London, 1930.
- Bennet, Margaret E. and Hand, Harold C., School and Life, McGraw-Hill Book Company, Inc., New York and London, 1938.
- Blair, Glenn Myers, Mentally Superior and Inferior Children in the Junior and Senior High School, Bureau of Publications, Teachers College, Columbia University, New York, 1938.
- Caulkins, Edward Dana, Physical Education and Training, Wingate Publishers, New York, 1934.
- Counts, George S., The Social Foundations of Education, Charles Scribner's Sons, New York, 1934.
- Garrett, H. E., Statistic in Psychology and Education, Longmans, New York, 1939.
- Greene, Harry A., Use and Interpretation of Tests, Longmans, New York, 1930.
- Hetherington, C. W., School Program in Physical Education, World Book Company, Yonkers-on-Hudson, New York, 1922.
- Keith, John Alexander Hull, Elementary Education, Scott, Foreman and Company, Chicago, 1907.
- Louittit, C. M., Clinical Psychology, Harper and Brothers Publishers, New York, 1936.
- McCloy, C. H., Test and Measurements in Health and Physical Education, F. S. Crofts and Company, New York, 1939.
- Mitchell, Elmer and Bernard, S. Mason, The Theory of Play, Health Publishing Company, New York, 1927.

- Montgomery, T. S., A Study of the Philosophy and Changing Practice in the Junior High School, Unpublished Doctoral Dissertation, University of Texas, Austin, 1940.
- Nash, J. B., The Administration of Physical Education, A. S. Barnes and Company, New York, 1932.
- Nison, Eugene White, Introduction to Physical Education, Saunders Publishing Company, Philadelphia, 1934.
- Rathbone, J. L., Corrective Physical Education, W. B. Saunders Company, Philadelphia, 1935.
- Reeder, W. G., How to Write a Thesis, Public School Publishing Company, Bloomington, Illinois.
- Roberts, Marion Rowland, Physical Education, Texas Outlook, August, 1937.
- Sharman, J. R., Introduction to Physical Education, New York, A. S. Barnes and Company, 1934.
- Staley, Seward C., Curriculum in Sports, W. B. Saunders and Company, Philadelphia and London, 1935.
- The Junior High School Curriculum, National Education Association, Fifth Yearbook, Department of Superintendency, Washington, D. C., 1927.
- Williams, Jess Fiering, Principles of Physical Education, Third Edition, W. B. Saunders and Company, Philadelphia, 1939.
- Williams, Jess Fiering, and Hughes, W. L., Athletics in Education, W. B. Saunders and Company, Philadelphia and London, 1930.
- Woods, T. D., and Rowell, H. A., Health Supervision and Medical Inspection of Schools, W. B. Saunders and Company, Philadelphia and London, 1933.
- Woods, Thomas, Source Book in Health and Physical Education, MacMillan Company, New York, 1925.

Periodicals and Pamphlets

- Clark, J. H., "As it is--in the Junior High Schools," Journal of Health and Physical Education, vol. IX, Dec. 1938.

Lenroot, K. F., "Relation of the Social Security Act to Present-Day Problems of Childhood," Childhood Education, vol. XII, November, 1935.

Meeker, H. H., "Experiment in the Adjustment of Problem Children," National Elementary Principal, vol. XV., April, 1936.

Rogers, Frederick Rand, "The Measurement of Individual Needs in Physical Education," American Physical Education Review, June, 1927, vol. XXXII.

Rogers, James Frederick, "Physical Defects of School Children," School Health Studies, Number 15, Department of the Interior, Washington, D. C., 1929.

Todd, E. M., "Provision in the High School Curriculum for Correcting Physical Defects," Journal of Educational Research, vol. III, January, 1921.

APPENDIX

HAGGERTY-OLSON-WICKMAN BEHAVIOR RATING SCHEDULES

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Sims Score Card
Form C



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Bloomington, Ill.

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SIMS SCORE CARD FOR SOCIO-ECONOMIC STATUS Form C

Score.....

1. Name.....
2. Age.....Years and.....Months
3. Grade..... Date.....
4. Have you spent two years in any grade?.....If so, what grades?.....
5. Have you skipped any grades?.....If so, what grades?.....
6. Home address: City..... State.....
7. How many years have you lived in this town?.....
8. Have you attended schools in any other towns?.....If so, name
them.....
9. Name of your School.....

Don't answer any of the questions below until you are told what to do.
If you have brothers or sisters in this school, write their names and
grades on these lines:

Name..... Grade.....

Name..... Grade.....

In the Following Questions Underline the Correct Answer:

Are you a Boy? a Girl? (Underline correct answer)

Are you living at home with your parents?.....Yes No

Are you living in the home of someone else, such as a rela-
tive, adopted parent, guardian, etc.?.....Yes No

Are you living in an institution, such as an orphan asylum
or a home for children?.....Yes No