RECOMMENDATIONS FOR AN IMPROVED
HEALTH, PHYSICAL EDUCATION, AND RECREATION CURRICULUM
AT PALMER HIGH SCHOOL, COLORADO SPRINGS, COLORADO

by 4589

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INTRODUCTION

Mr. Wilson W. Elkins, President of the University of Maryland, in a speech on education had this to say:

The purpose of education is to develop the potentialities of the individual. Many factors and agencies are involved in this development of which the schools and colleges have the primary responsibility. When the intellect develops within the human body, it needs a proper climate of which, in a large measure, is good health. It is exceedingly important therefore, that physical education be included in any general program designed to improve our human resources. (11)

It is a known fact that if the general curriculum does not include a program of physical development and the essentials of good health, these will be neglected by the student and will not be adequately supplied by the home or other agencies.

There is a strong case for physical education as an integral part of the general program. It must be associated with solid information and the development of habits and skills that will contribute to health and happiness throughout life. (11)

The American people today have more leisure time than ever before. We have more modern labor-saving conveniences today that provide us this leisure time. Therefore, we are doing less physical activity and are more physically unfit today than ever before. (2) Physical educators feel that a good physical education program should help a person understand the attributes of good physical fitness. Also physical education gives him a knowledge of both team and individual sports that will have a carry-over value that can be used as entertainment and recreation in these many leisure hours. Too many times we
confuse people about physical education by not relating the actual values or the "why" of physical education.

STATEMENT OF THE PROBLEM

The problem was to increase the effectiveness of the total educational program through an improved physical education program for Palmer High School at Colorado Springs, Colorado, by (1) reviewing the administrative time allotments and policies for physical education, (2) reviewing literature written in the field of physical education by noted authorities, and (3) making recommendations for more activities and other criteria for the better development of the program.

REVIEW OF RELATED LITERATURE

In a study by Lawrence A. Pope, who had visited and studied physical education programs in many schools, states that in many schools where the physical education programs are poor, can be traced to the fact that physical education is taught only two or three times a week. The instructor is a classroom teacher, therefore, puts much more effort in planning his classroom subjects than preparing to teach physical education. (17) Mr. Pope noted that in a number of the physical education programs physical fitness was the major program objective. Mr. Pope felt that there should be more of an equilibrium between physical fitness and activities that will have some carry-over value. However, he found that "most of the physical fitness conscious programs were found in large city high schools." (16)
Among questions we must ask ourselves is: "Who is responsible for the existing conditions of physical education?" Physical educators must assume the major responsibility for the present conditions that exist within our field. However, administrators may be held partly to blame for some of the poor practices within the physical education program. Without the constant lack of interest, it is doubtful that these conditions could exist within the generally well-administered and well-ordered schools. The following are some questions which the conscientious physical educator and administrator should ask concerning the physical education program:

1. Is the curriculum based upon accepted national studies and standards?  
2. Is there progression of the program from the seventh grade on through, based upon the needs and known interests of the students?  
3. Are the stated outcomes evaluated against accepted standards to show progress or lack of progress?  
4. Do grades received by the students rate their ability in the physical and skill developmental areas as well as knowledge and social outcomes?  
5. Must a student pass physical education each year to graduate?  
6. Are the skills in regular physical education classes taught with the same enthusiasm and direction as those taught in the athletic programs?  
7. Is there sufficient budget to operate your classes in physical education on as high a level as you do the athletic program and other classes?  
8. Are physical education teachers compensated for extra duties?  
9. Are supervisors interested in the actual learning situation as well as the administrative aspects of the program? (12)

Some things that need to be done by physical educators include the initiation of an all-out membership drive in the American Association for Health, Physical Education, and Recreation organization, as many teachers are not members. (2)

Physical educators need to recapture a great pride in the worthiness of
our programs. When physical education teachers become convinced that our prime function is to inculcate in students an appreciation and desire for physical activity that will persist throughout life, they will truly contribute to the vitality of the nation's total population.

Physical educators need to take a good look at their programs, and turn more attention to planning and better instruction. They need an overall concept to realize that it is more than a temporary gain in physical fitness or some sports aspect. (12)

Most state departments are encouraging testing programs, and in most cases, recommending the physical fitness tests endorsed by the President's Council.

California has been developing a cooperative test project for some time, and has issued a bulletin entitled "California Physical Performance Tests." This publication contains new norms, accepted tests and suggestions for both measurement and total evaluation.

Some suggestions that might help improve a physical education program are:

1. Establish a classification profile consisting of information relative to all activities for each student.
2. Provide each student with a personal classification profile of these factors and prescribe classes on the basis of the profile.
3. Utilize a team approach to the physical education curriculum.
4. Provide instruction in motor analysis, scientific knowledge related to exercise physiology, and the emotional factors related to competition.
5. Utilize lecture-discussion courses to compliment laboratory experiences.
6. Evaluate each student's progress in knowledge and skills by means of a comprehensive examination at the conclusion of the physical education experience. (16)

Not all suggestions can be worked into all programs, but it is to the
physical educator's advantage and success, to try to work the appropriate suggestions into his program. These new norms for evaluating physical education programs, developed in California, should be studied in order to improve your specific program.

The Maine State Curriculum Committee, in their physical education brochure stated: "The major purposes of physical education are to develop the physical fitness, stamina and strength of boys and girls, and to help build neuromuscular skills and habits which are lifelong assets." To accomplish this objective they believe that five 50-minute periods each week should be provided for each pupil in grades seven through twelve. (15)

The Maine State Curriculum Committee further states that it should be possible to learn through a testing program when boys and girls have achieved satisfactory proficiency in physical education skills and a satisfactory level of physical fitness. (15)

Students in grade twelve who meet these standards may well be given an opportunity to substitute for formal physical education classes participation in such physical activities as golf, swimming, fishing, hiking, and winter sports. These activities should be carefully selected with emphasis upon their carry-over value into adult life and their consistency with the goals of physical education. (15)

Morton Levitt, who wrote in School and Society, tried to caution us from using too many motor skill tests and physical fitness tests to the extent that all physical education teachers are doing is using the "kids" for guinea pigs for their own knowledge. It was his opinion that physical education should have as its directive, fun; that practically all activities should be of
team types or game types at least, and have carry-over value. He feels physical educators are defeating their purpose altogether and leaving themselves open to criticism when we do otherwise. He connotes that physical skills will develop naturally from a physical education program which encourages spontaneity, enthusiasm, and freedom. Levitt connotes that "this consists principally of the process of supplying children with opportunity for happy expression with sympathetic leadership and untrammeled by confusions which exist in adult minds." (14)

The Fairmont Junior High School at Fairmont, Minnesota, had an accelerated program. Each unit in the curriculum was taught with progress in fundamentals or a goal. The student was encouraged to progress as far as he could, and extra credit is given for a more advanced performance. This special program was developed to challenge students and provide opportunities for maximum achievement. Standards of passing grades and good citizenship were the necessary enrollment requirements. All eighth grade teachers and the principal can recommend boys for the program. In addition to the required health courses, the basic units in this accelerated class were physical fitness tests, special assignments, advanced tumbling and apparatus work, recreational sports, and training. (8)

At Evergreen Park High School in Evergreen Park, Illinois, a new approach to teaching physical education had taken place. Team teaching and a class organization that divides large groups into small ones for special instruction constitutes this new program for boys. Evergreen Park High School is a suburban Chicago area school with an enrollment of about 1,070 students. It operates seven periods a day of 56 minutes each. Three indoor teaching stations
are maintained in physical education for boys. There are three full-time staff instructors and two who share their teaching assignments with another department. Students participate in three days of physical education classes and two days of health instruction each week. Seniors have five days of gymnasium classes.

All students of the same grade level are scheduled into a single class. This arrangement produced a schedule of class meetings four periods a day, replacing the customary program of fourteen classes in seven periods. The new schedule did affect the balance of boys in classes other than physical education. If a girls' physical education program was correlated with the boys' it would obviously eliminate this problem.

A team of four instructors is assigned to each of the four classes. All physical education instructors were scheduled to meet in a common planning period, which takes place of the fifth class. (7)

From the previous literature listed, illustrating several different programs, the physical educator must realize that he should only accept those ideas that are useful, experiment with a new concept or two that he may be able to work into his program. He must not confuse his program with that of someone else.

The consensus among educators in most states is that physical education should be offered on a five-day-a-week schedule to fully realize that potentiality of the program. Organic fitness is a transitory thing, and people have to be constantly active to keep physically fit. Organic fitness "comes and goes" rapidly if we cease to be active.

Many people have asked the question, "Why physical education everyday for twelve- to seventeen-year olds? Aren't they active enough as it is?" Some
of them are, but the majority of them are not active so physical education is very important.

Physical educators also have heard the objection to comparing students with national norms or averages and many other kinds of tests. They have heard the argument that many teachers overemphasize physical fitness to stimulate their students to progress above national norms and tests. Physical education has national norms and tests to compare with in all other types of education, and in mental ability tests; this objection is a problem in classroom subjects as well. Just because some teachers place over emphasis on the importance of national norms and averages is no reason to discard them altogether. Probably a satisfactory solution is in having the student compete with himself for self-improvement, as this should be one of his more important goals anyway. (7)

LIMITATIONS OF THE UNDERTAKING

The scope of this report includes only the Secondary School Health, Physical Education and Recreation Program at Palmer High School, Colorado Springs, Colorado.

The junior high school program has been omitted completely from this paper although this program is essential for an excellent secondary school program.

GROWTH OF HEALTH, PHYSICAL EDUCATION AND RECREATION

Brief Historical Background of Physical Education (2)

Until recent years rapid progress in the development of a school program of health and physical education has been impeded by a number of factors. The
influence of various European systems of physical education, the attitude toward play held by early American educators, the development and overemphasis of athletics for the few, the lack of properly prepared teachers, and the rapid growth of enrollment in the public schools have contributed to a slow development in the school program of physical education.

The programs of the early Latin grammar school did not provide for any form of physical education, athletics, play, or recreation. With the growth of the academy, the aim of education gradually changed from the narrow religious training of the Latin grammar school to the preparation for college. In comparison with the grammar schools the academy curriculum was broad and manifested a general reform in American educational theory and practice. (2)

The primary aim of the German system of gymnastics founded by Jahn, was to prepare youth for military duty. Although the German system gained a large following and was quite generally used for a time in the American schools, it gradually declined. (2)

The Swedish system like the German one, gained considerable support in America. As in the case of the German system it was not designed to meet with permanent success in the American scheme of education, due largely to the faculty aims and formal methods required. (2)

No organized system of physical education has been borrowed from England, yet the English emphasis on play and recreation has exerted a lasting influence on the American physical education program. Many games of low organization now used in America are distinctly English in origin. Such sports as soccer and tennis came to America from England. (2)
Development of Health Education

In recent years, however, there has been a growing emphasis on the development of health education materials in the public schools. The recent emphasis has been due largely to the realization on the part of school administrators and teachers of the need of a more functional health program. Teachers gradually became conscious of the need for health education and practice.

Near the turn of the century medical inspection was introduced into the schools. Partly because of the influence of the various procedures of medical inspection, strong emphasis was placed on the development of desirable health practices. Further impetus was given to the development of health education through the formulation of the seven objectives of education by the National Education Association. In these objectives, the health and physical welfare of the child were again considered of primary importance.

In the past two or three decades there has been a noticeable trend for physical educators to take the responsibility for the complete health knowledge of the student although other teachers have cooperated. (2)

Recreation in the Schools

The industrial development in America brought about a greater need for recreation. Living in urban centers with increasing amounts of leisure time gradually brought groups of people to realize the great need for recreation. (2)

Within the past four or five decades recreation has developed rapidly both within and without the schools. The majority of school authorities have come to realize the need for recreation. In many schools recreation and the
education of youth for leisure, are handicapped by a lack of resources, yet there seems to exist a gradual improvement in the schools as a whole. (2)

The First Academic Program of Physical Education in American Education

"The earliest pioneer in the modern American physical-education profession was Dr. Edward Hitchcock, who spent fifty years working to establish a scientific foundation for the profession." (5)

In 1861 Dr. Hitchcock accepted the position as Director of the new Department of Physical Education and Hygiene at Amherst College. Here he established the field of anthropometric measurement in physical education. Dr. Hitchcock, in 1885, was chosen chairman of the meeting at Adelphi Academy, which resulted in the founding of the American physical-education profession, known then as the Association for the Advancement of Physical Education; he served as its first president.

The idea of physical culture has too often been that great muscular development is the only essential element in it, and the fact is indeed true that the well man is muscually strong. Dr. Hitchcock felt that the problem to be solved was what arrangement of required muscular exercise and recreation combined is the best for the students as a whole. In what way can we best help them to keep body and mind working harmoniously and effectively together. For man to secure full development of his intellectual, emotional, and spiritual being, he must obtain physical fitness.

Dr. Hitchcock felt in order for the students to be in the best condition for work, the muscles should not be trained to their highest powers for the most healthful and intellectual men are not those who have the most muscular
power. They are often well-developed men, and of excellent physical inheritance, but they are not muscle men.

During the first few year of work there, the simpler and easier forms of gymnastic work were required of all the class; every man was expected to practice heavy gymnastics under direction of the leader. This became very tedious work, irksome and impossible for some. It was injurious, both emotionally and physically, to a large part of the class. This activity was then discontinued but once each year a prize exhibition was held, when individual students competed in heavy gymnastics.

The new physical culture at Amherst College included cleanliness of skin, attention to stomach and bowels, relaxation from daily mental work, freedom from certain kinds of petty discipline, and stability to the methods of maintaining health and the men enjoyed these new methods. Physical education at Amherst College was not a program of strenuous exercises but was one of pleasant, vigorous, easy, and graceful movements. Light wooden dumbbells weighing about one pound each were placed in each hand and then a series of movements directed by a member of the class, called the captain, were timed by music, occupying in all about 20 to 30 minutes each day. (5)

OBJECTIVES OF EDUCATION

Over the past half century many writers, committees, and commissions have given expression to statements of educational objectives. The Commission on the Reorganization of Secondary Education, spent three years preparing the

Cardinal Principles of Secondary Education, published in 1918. This publica-
tion proposed a set of seven cardinal objectives for the school. These were:
(1) health, (2) command of the fundamental processes, (3) worthy home membership, (4) vocational competence, (5) effective citizenship, (6) worthy use of leisure, and (7) ethical character.

It is worth noting in this connection that the Educational Policies Commission (9) was a high-level committee of the National Educational Association. The National Education Association had this to say concerning the Cardinal Principles of Secondary Education: "It is probably the most influential educational document issued in this country."

In 1938 the Educational Policies Commission (9) in The Purposes of Education in American Democracy, developed four objectives, each with various subobjectives. These were:

I. The Objectives of Self-Realization.

A. The inquiring mind.
B. Speech.
C. Reading.
D. Writing.
E. Number.
F. Sight and hearing.
G. Health knowledge.
H. Health habits.
I. Public health.
J. Recreation.
K. Intellectual interests.
L. Esthetic interests.
M. Character.

II. The Objectives of Human Relationship.

A. Respect for humanity.
B. Friendship.
C. Cooperation.
D. Courtesy.
E. Appreciation of the home.
F. Conservation of the home.
G. Home making.
H. Democracy in the home.
III. The Objectives of Economic Efficiency.

A. Work.
B. Occupational information.
C. Occupational choice.
D. Occupational efficiency.
E. Occupational adjustment.
F. Occupational appreciation.
G. Personal economics.
H. Consumer judgement.
I. Efficiency in buying.
J. Consumer protection.

IV. The Objectives of Civic Responsibility.

A. Social justice.
B. Social activity.
C. Social understanding.
D. Critical judgement.
E. Tolerance.
F. Conservation.
G. Social applications of science.
H. World citizenship.
I. Law observance.
J. Economic literacy.
K. Political citizenship.
L. Devotion to democracy.

In 1961, the Educational Policies Commission listed the development of the rational powers of man as the central purpose of American education. The following quotation contains the Commission's concluding statement: (10)

Individual freedom and effectiveness and the progress of the society require the development of every citizen's rational powers among the many important purposes of American schools the fostering of that development must be centered.

Man has already transformed his world by using his mind. As he expands the application of rational method to problems, old and new, and as people in growing numbers are enabled to contribute to such endeavors, man will increase his ability to understand, to act, and to alter his environment. Where these developments will lead cannot be foretold.

Man has before him the possibility of a new level of greatness, a new realization of human dignity and effectiveness. The instrument which will realize this possibility is that kind of education which frees the mind and enables it to contribute to a full and worthy life. To achieve this goal is the high hope of the nation and the central challenge to its schools.
PHYSICAL EDUCATION OBJECTIVES DERIVED FROM EDUCATION OBJECTIVES (4)

Physical education as part of the school curriculum must share the function of education. That function is related to helping individuals to grow, develop, and adjust to the problems of individual happiness to competent membership in the family, to constructive citizenship in a democracy, and to appreciative understanding of the ethical values that undergird our world society. As a member of the educational family, physical education subscribes to educational objectives and endeavors to make its best contribution to their realization. The only justification for physical education—or any other subject in the school curriculum—is that it contributes to an important way to educational objectives. The criterion applied to every school subject or activity is that it must be in harmony with educational goals. Physical education is not peculiar in the objectives it strives to attain, but is unique in the opportunities that its activities provide, both because of their nature and the methodology, inherent in them.

THE OBJECTIVES OR FUNCTIONS OF PHYSICAL EDUCATION

Stoodley (20) has analyzed the physical education objectives as they were stated by 22 different authors. Altogether 493 different items were listed, which were then classified under these headings: (1) health, physical, or organic development, (2) mental-emotional development, (3) neuromuscular development, (4) social development, (5) intellectual development, and (6) recreational development. These six classifications will be discussed briefly in the above order.
(1) The health, physical, or organic development.

One of the primary functions of physical education is to develop each individual to his greatest possible physical capacity within the range of accepted educational objectives. The development in skill and ability as well as organic development. Strength, vigor, vitality, and neuro-muscular coordination must be a part of the development of the physical capacities of youth.

All plans for the physical development of youth must harmonize with the total educational process. Physical development and adjustment must facilitate efficient academic progress.

(2) The mental-emotional development.

The growing emphasis on emotions in education in recent years has served to assure physical educators in their long held belief that emotional development is an important objective in the schools. Now it is generally recognized that the emotions of the individual must be given prime consideration throughout the entire educational program if the best results are to be attained.

It is generally thought that, because of the nature of physical activities, the teachers in physical education are in a position to obtain desirable results in the emotional development of pupils more readily than in most other school activities. Participation in team games, particularly places pupils in situations where they are under pressure and emotional control may easily be lost.

(3) The neuro-muscular development.

Development of motor skills is the synonym of neuro-muscular development, since to mechanism of behavior involved are muscle-nerve structures.
The degree of the development of motor skills depends upon the variety, amount, and intensity of participation in motor activities during the years of growth.

(4) Social development.

It is now generally accepted that the social development of pupils is an important part of general education. Desirable social relationships are extremely important in all phases of school life as well as in adult life. Often, the socializing influence of extracurricular activities of all types is cited as a justification for their inclusion in the total school program.

For many years the social objective in physical education has been accepted by physical educators. Certainly, if the schools realize a duty in the social development of school children, then physical education should contribute to this development the same as do other fields of learning within the total program of education. However, it is frequently claimed that teachers in physical education should assume more responsibility than other teachers for the social development aims of the school, for the nature of physical activities is such that desirable results may be obtained more readily than in most other school activities.

(5) Intellectual development.

Teachers in health and physical education are concerned with the intellectual development of youth in at least three ways. That is, they have a responsibility, first, to impart sufficient knowledge of healthful living so that the pupil will be equipped to make the best possible adjustment in adult life so far as health knowledge is needed; second, to impart a knowledge of the
fundamentals, rules, and strategy of sports; and, third, to assist in providing a medium for the most efficient and effective intellectual development of each boy and girl not only in the physical education program but also in the academic fields.

(6) Recreational development.

It is the duty of the schools to assume a large share of the responsibility in training pupils to make intelligent use of leisure time.

The program of physical education in the schools should be constructed with both the present and the future recreation of the pupils in mind. It is desirable to include activities that are fundamental to physical development and basic to recreation. These activities should be composed of the more strenuous sports in which adults are not likely to participate.

REASONS AND OBJECTIVES OF HEALTH INSTRUCTION

Health has been and is accepted as a major objective in education. The following items are specific reasons for including health instruction in the total school curriculum: (3)

1. Although the health of each individual student is the prime responsibility of his or her parent, the school finds itself in the unique social situation in our complex society to obtain and to disseminate the latest reliable information in the health sciences.
2. The school is the most logical place for finding professional people with sufficient information in the health sciences.
3. The school is the most appropriate "clearing house" for differentiating between true health information and health misconceptions.
4. The school has the ability to provide scientific information in an unbiased manner.
5. The school is the most opportune place to inform the new generation of citizens on the most significant health problems facing them.

6. The school has the potential for motivating future citizens to be active rather than complacent about their present and future health problems. Many of these existing problems are the result of apathy and constant social and technological change.

7. The school can provide the students with knowledge that can aid in the prevention of acute, chronic, and degenerative diseases.

8. The school can provide the students with information that can protect, maintain, and promote their total health.

9. The school can provide the students with the information necessary to become a discriminating user of consumer health products, services, and resources.

10. The school can provide the students with the knowledge necessary to administer emergency care in the event of an accident or sudden illness.

11. The school can provide the students with information that can be used in recognizing modern day health quackery.

12. The school can provide the students with knowledge that is valuable in understanding the legal implications of health and safety problems, such as water and air pollution, law suits involving home and automobile accidents, and medical care for the aged and indigent.

13. The school can provide the students with the information necessary for determining their tentative future health needs, such as plans for health insurance and medical care.

14. The school can provide the students with the information for understanding the new and emerging world health problems.

15. The school can provide the students with the capacity for facing international crises and the health problems that result from such a situation.

16. The school can provide the students with an understanding of the meaning and value of total fitness in these days of stress, tension, and change.

In addition to these specific reasons for including health instruction in the total school curriculum it is absolutely essential that the program provide the basis for stimulating careers in the health sciences.

Within the total school health program and within health instruction the goal should be the health-educated individual. Often the objectives of the health instruction program tend to become vague, elusive, and somewhat genera-
lized in the minds of lay and professional people which in turn tends to give a superficial basis for health instruction. Therefore, it becomes imperative that the program delineate its specific objectives in order to differentiate them from other related fields and to emphasize the inherent value of a good health program. Too often we are called upon to define our roles as health educators, and we find ourselves unable to elicit valid answers. The objectives presented in the following information may help us cope with this professional problem. Some of the objectives of the school health instruction program include:

1. To promote optimum or better health for each student.
2. To bring about positive changes in behavior that have favorable influences on individual and community health.
3. To screen health information that has become obsolete, for the school is in the key position to eliminate the obsolete and to disseminate the new reliable health information.
4. To challenge the students by providing learning experiences that will help them to make discriminating decisions in directing their own health behavior for individual and community affairs.
5. To help the student develop a sense of appreciation concerning the value of health to the individual and to the community.
6. To provide students with information that will enable them to purchase health products and services in a discerning manner.
7. To provide students with the necessary knowledge for determining their own health needs.
8. To furnish students with the information essential for determining their communities' health needs.
9. To develop knowledges, attitudes and practices for protecting individual and community health.
10. To disseminate information that will help prevent and control communicable, chronic, and degenerative diseases.
11. To encourage the student to participate as a well informed and responsible citizen in solving local, state, national, and international health problems.
12. To help each student realize the health implications of daily living.
13. To develop competencies in the student generation that will enable them to solve or to deal effectively with their present and future individual and community health problems. (3)
INTERESTS, STRENGTHS, WEAKNESSES, AND NEEDS IN HEALTH

Three important considerations which are involved in determining the content of the secondary school health instruction program are: (1) health interests of students, (2) strengths and weaknesses in health content areas, and (3) needs of students as revealed by research. (4) Each of these items will be discussed in turn.

(1) Health interests of secondary school boys and girls.

A number of studies of health interests of secondary school students have been made. Lantagne (13), in a study of the health interests of 10,000 secondary school boys and girls, reports the leading health interests as shown in Table I. This survey revealed that most of the items of greatest interest to boys were also of greatest interest to girls.
### Table I

**Health Interest of Secondary School Boys and Girls**

<table>
<thead>
<tr>
<th>Health Interest</th>
<th>Boys Percent Interested</th>
<th>GIRLS Health Interest</th>
<th>Girls Percent Interested</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Sex Instruction</td>
<td>65</td>
<td>1. Sex Instruction</td>
<td>70</td>
</tr>
<tr>
<td>2. Safety in Water</td>
<td>64</td>
<td>2. Juvenile Delinquency</td>
<td>67</td>
</tr>
<tr>
<td>3. Tobacco and Human Health</td>
<td>61</td>
<td>3. Cancer</td>
<td>64</td>
</tr>
<tr>
<td>4. How to Use a Gun Properly</td>
<td>60</td>
<td>4. Causes of Suicide</td>
<td>64</td>
</tr>
<tr>
<td>5. Sports vs. Apparatus Activity</td>
<td>58</td>
<td>5. Preparation for Marriage</td>
<td>64</td>
</tr>
<tr>
<td>6. Atomic Warfare</td>
<td>58</td>
<td>6. Safest Age to Have A Baby</td>
<td>64</td>
</tr>
<tr>
<td>7. Juvenile Delinquency</td>
<td>58</td>
<td>7. Causes of Mental Illness</td>
<td>64</td>
</tr>
<tr>
<td>8. Speed and Accidents</td>
<td>58</td>
<td>8. Jealousy</td>
<td>60</td>
</tr>
<tr>
<td>11. Problems of Tooth Decay</td>
<td>54</td>
<td>11. Deaths of Mothers in Childbirth</td>
<td>57</td>
</tr>
<tr>
<td>13. Hit-and-Run Drivers</td>
<td>51</td>
<td>13. Lifelong Care of the Eyes</td>
<td>56</td>
</tr>
<tr>
<td>15. Lifelong Care of Eyes</td>
<td>50</td>
<td>15. Ability to Have Children</td>
<td>54</td>
</tr>
<tr>
<td>16. Problems of Alcohol</td>
<td>48</td>
<td>16. Cancer is Inherited</td>
<td>54</td>
</tr>
<tr>
<td>17. War and Disease</td>
<td>47</td>
<td>17. Tobacco and Health</td>
<td>54</td>
</tr>
</tbody>
</table>

(2) Strengths and weaknesses of secondary students in health content areas.

In developing the health instruction program on the secondary school level it is extremely helpful to know the strengths and weaknesses of the students in the various areas. The data in Tables II and III have been made available by Sliepecevich (18) after an extensive national survey.
### TABLE II

**COMPARISON OF PERCENTAGE OF CORRECT RESPONSES**

**BY HEALTH CONTENT AREA AND BY PRACTICES, ATTITUDES, AND KNOWLEDGE FOR MALES AND FEMALES WITHIN DISTRICT GROUPS ON THE NINTH GRADE HEALTH BEHAVIOR INVENTORY**

<table>
<thead>
<tr>
<th>Category</th>
<th>LARGE M</th>
<th>LARGE F</th>
<th>MEDIUM M</th>
<th>MEDIUM F</th>
<th>SMALL M</th>
<th>SMALL F</th>
<th>TOTAL for Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Care of Special Senses</td>
<td>76.9</td>
<td>82.4</td>
<td>68.0</td>
<td>70.5</td>
<td>72.4</td>
<td>78.8</td>
<td>77.5</td>
</tr>
<tr>
<td>2. Community Health</td>
<td>78.4</td>
<td>82.6</td>
<td>79.1</td>
<td>82.1</td>
<td>73.2</td>
<td>83.8</td>
<td>80.0</td>
</tr>
<tr>
<td>3. Consumer Health</td>
<td>48.8</td>
<td>49.6</td>
<td>44.3</td>
<td>47.5</td>
<td>44.8</td>
<td>46.6</td>
<td>46.8</td>
</tr>
<tr>
<td>4. Defense Against Disease</td>
<td>66.4</td>
<td>71.5</td>
<td>66.2</td>
<td>69.0</td>
<td>61.1</td>
<td>68.5</td>
<td>67.2</td>
</tr>
<tr>
<td>5. Dental Health</td>
<td>71.3</td>
<td>75.8</td>
<td>68.2</td>
<td>71.3</td>
<td>62.9</td>
<td>68.9</td>
<td>69.7</td>
</tr>
<tr>
<td>6. Exercise and Body Mechanics</td>
<td>78.8</td>
<td>78.5</td>
<td>65.3</td>
<td>66.9</td>
<td>71.8</td>
<td>71.8</td>
<td>74.6</td>
</tr>
<tr>
<td>7. Fatigue, Sleep, and Rest</td>
<td>65.6</td>
<td>69.6</td>
<td>55.4</td>
<td>59.5</td>
<td>60.2</td>
<td>64.2</td>
<td>64.6</td>
</tr>
<tr>
<td>8. Habit Forming Substances</td>
<td>59.7</td>
<td>64.5</td>
<td>53.1</td>
<td>58.2</td>
<td>59.6</td>
<td>68.3</td>
<td>62.7</td>
</tr>
<tr>
<td>9. Mental Health</td>
<td>63.5</td>
<td>74.7</td>
<td>65.1</td>
<td>70.1</td>
<td>59.8</td>
<td>70.9</td>
<td>67.4</td>
</tr>
<tr>
<td>10. Nutrition</td>
<td>75.6</td>
<td>78.7</td>
<td>72.5</td>
<td>77.7</td>
<td>67.6</td>
<td>72.0</td>
<td>75.2</td>
</tr>
<tr>
<td>11. Personal Health and Grooming</td>
<td>75.9</td>
<td>81.1</td>
<td>76.3</td>
<td>80.4</td>
<td>71.3</td>
<td>76.6</td>
<td>77.4</td>
</tr>
<tr>
<td>12. Safety and First Aid</td>
<td>66.9</td>
<td>72.6</td>
<td>69.3</td>
<td>71.7</td>
<td>66.0</td>
<td>70.4</td>
<td>69.7</td>
</tr>
<tr>
<td>Practices</td>
<td>46.2</td>
<td>51.6</td>
<td>44.6</td>
<td>49.1</td>
<td>40.0</td>
<td>46.1</td>
<td>46.3</td>
</tr>
<tr>
<td>Attitudes</td>
<td>76.6</td>
<td>81.3</td>
<td>72.1</td>
<td>77.8</td>
<td>74.2</td>
<td>78.9</td>
<td>77.2</td>
</tr>
<tr>
<td>Knowledge</td>
<td>77.7</td>
<td>83.3</td>
<td>70.7</td>
<td>73.0</td>
<td>73.2</td>
<td>79.7</td>
<td>77.9</td>
</tr>
</tbody>
</table>


Table II shows that the areas in the ninth grade which are in need of more emphasis are: habit-forming substances, consumer health, fatigue, sleep and rest, defense against disease, mental health, safety, and first aid.
### TABLE III

**Comparison of Percentage of Correct Responses by Health Content Area for Males and Females Within District Groups on the Twelfth Grade Health Behavior Inventory**

<table>
<thead>
<tr>
<th>Category</th>
<th>LARGE</th>
<th></th>
<th>M</th>
<th>F</th>
<th>M</th>
<th>F</th>
<th>M</th>
<th>F</th>
<th>M</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(270)</td>
<td>(270)</td>
<td></td>
<td></td>
<td>(430)</td>
<td>(430)</td>
<td></td>
<td></td>
<td>(300)</td>
<td>(300)</td>
</tr>
<tr>
<td>1. Chronic Diseases</td>
<td>57.1</td>
<td>60.0</td>
<td>54.0</td>
<td>62.0</td>
<td>52.3</td>
<td>61.8</td>
<td>.579</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Communicable Diseases</td>
<td>68.0</td>
<td>73.1</td>
<td>70.0</td>
<td>74.5</td>
<td>64.7</td>
<td>71.4</td>
<td>.706</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Community Health</td>
<td>56.0</td>
<td>57.3</td>
<td>54.4</td>
<td>61.6</td>
<td>49.9</td>
<td>61.6</td>
<td>.570</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Consumer Health</td>
<td>55.3</td>
<td>70.0</td>
<td>59.2</td>
<td>63.8</td>
<td>53.3</td>
<td>61.7</td>
<td>.595</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Dental Health</td>
<td>70.0</td>
<td>74.2</td>
<td>69.4</td>
<td>75.2</td>
<td>66.1</td>
<td>71.5</td>
<td>.713</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Exercise, Sleep and Relaxation</td>
<td>64.1</td>
<td>70.7</td>
<td>67.9</td>
<td>74.5</td>
<td>61.0</td>
<td>70.4</td>
<td>.686</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Family Health</td>
<td>62.3</td>
<td>74.6</td>
<td>64.2</td>
<td>75.5</td>
<td>60.0</td>
<td>74.0</td>
<td>.687</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Mental Health</td>
<td>71.2</td>
<td>80.1</td>
<td>71.5</td>
<td>81.1</td>
<td>65.6</td>
<td>77.9</td>
<td>.748</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Nutrition</td>
<td>42.5</td>
<td>47.5</td>
<td>43.1</td>
<td>49.4</td>
<td>40.5</td>
<td>46.4</td>
<td>.452</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. Personal Health</td>
<td>72.8</td>
<td>80.6</td>
<td>73.0</td>
<td>82.0</td>
<td>70.6</td>
<td>81.4</td>
<td>.769</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. Safety Education</td>
<td>70.5</td>
<td>71.6</td>
<td>69.1</td>
<td>69.9</td>
<td>64.7</td>
<td>71.8</td>
<td>.696</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12. Stimulants and Depressants</td>
<td>82.9</td>
<td>87.7</td>
<td>80.0</td>
<td>88.0</td>
<td>74.4</td>
<td>86.6</td>
<td>.833</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table III shows that the areas in the twelfth grade which are in need of more emphasis are: nutrition, community health, chronic diseases, consumer health, exercise, sleep and relaxation, and family health.

(3) Problem areas revealed by research

In developing the content for the secondary school health instruction program the health interests and the assessment of strengths and deficiencies in the various health areas are important considerations. In addition, research shows critical problem areas that represent student needs. Sliepcervich (18)
observes, "Other research data support the need to emphasize the following areas as a part of health instruction, and, in some instances, provide reasons for earlier grade placement."

Alcohol education:

Studies indicate that the majority of teenagers will have experimented with alcoholic beverages prior to graduation from high school; personal use tends first to occur at ages 13-14 in the home or under adult supervision. In some communities six out of ten young people use alcohol; in other communities a minority are users. Intelligently choices about use of alcoholic beverages must be based on objective data which allow for an understanding of the physiological, psychological, cultural, social, and economic aspects of drinking.

Community health programs:

Billions of dollars are spent annually for the medically indigent, construction of hospitals and clinics, and training of personnel. Official and private health agencies rely on the informed citizen to support such services.

Consumer health education:

In 1959, teenage expenditures amounted to ten billion dollars and were expected to be twice that amount by 1970. Health products are widely advertised through mass media. A billion dollars a year is invested by the public in medical quackery.

Environmental hazards:

Emerging health problems such as water and air pollution, radiation, pesticides, and food additives require an enlightened population to bring about necessary preventive and corrective action.

Health careers:

One of every 30 persons employed in the United States works at maintaining the nation's health. There is an increasing shortage of health personnel. Young people have a tendency to choose careers early in their secondary school experience or even before.

International health activities:

More than one-half of the world's population has an income of less than $100 a year; two-thirds of the world's people live in underdeveloped areas. Such factors as malnutrition and disease may affect the choice of political ideologies. World health problems cannot be ignored.
Nutrition and weight control:
Dietary practices become increasingly worse throughout
the teenage years especially for girls. There is evidence that
the overweight child is more likely to become the overweight
adult. Eating habits are affected by a complex of social pres-
sures and emotional factors.

Sex education, family life, parenthood and child care:
Questions about sex asked by fifth and sixth grade children
in anonymous surveys reflect distorted facts and a need for
accurate information. Recent statistics show that more women
marry in their eighteenth year than in any other, and more have
their first child in their nineteenth year. Nearly 40 percent
of unwed mothers are between the ages of 15 and 19; illegitimacy
is on the increase.

Smoking:
Reportedly, about one in three high school seniors smoke;
in some communities the estimate is as high as one in two.
The greatest number of smokers begin between the ages of 10
to 15 years. More than a million of today's school-age children
will die of lung cancer before the age of seventy, if present
smoking pattern and death rates for smokers continue.

Venereal disease education:
Venereal disease infects more than 250,000 young persons
(15 to 19), annually according to recent estimates. An
increase of 56 percent in syphilis among teenagers was reported

One method that has been of value for accurately determining the needs
and interests of a health class is the San Jose State College devised inventory.
An example of such an inventory is shown on Table IV on page 27.
TABLE IV
HEALTH INTEREST AND HEALTH NEED INVENTORY (3)

DIRECTIONS: Please rank in order your areas of interest and your areas of need.

<table>
<thead>
<tr>
<th>CONTENT</th>
<th>INTEREST</th>
<th>NEED</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alcohol</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Anatomy and Physiology (structure &amp; function of body)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cancer</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Care of Ears</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chronic Diseases</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Community Health</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Consumer Health</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dental Health</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Drugs &amp; Habit-Forming Substances</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Environmental Health (air pollution, radiation, etc.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Exercise and Health</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Family Living (includes sex education)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>First Aid</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Food and Nutrition</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Growth and Development</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Health &amp; Human Heredity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Health Current Events (new discoveries)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Health Misconceptions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Heart Disease</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Infection and Immunity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Medical Care (selecting a medical advisor)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>— Health Insurance</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Occupational Health</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Personal Health</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prevention and Control of Communicable Disease</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Problems of Aged and Aging</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reasons for Health</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Safety (Accidents, etc.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tobacco and Health</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vision Health</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Voluntary and Official Health Programs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Please list any other areas of interest or need:</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Courtesy of the Department of Health and Hygiene, San Jose State College, San Jose, California.
FACTORS AFFECTING THE ACTIVITIES IN THE
HEALTH, PHYSICAL EDUCATION, AND RECREATION CURRICULUM

There are a number of important factors affecting the curriculum in physical education. The following is a list of the most important factors:

1. Facilities, equipment, and available space.
2. State legislation.
3. Credits, grades and marks in physical education.
4. Community background in physical education.
5. Size of classes.
6. Teacher personnel in physical education.
7. Grade placement of activities.
8. Time allotment.
9. Climatic conditions.
10. Attitude and support of school administrators.
11. Supervision as a factor affecting the curriculum.
12. Community recreation facilities.
13. The progressive school.

FACILITIES AVAILABLE AT PALMER HIGH SCHOOL

Figure I on page 29 and Figure II on page 30, illustrate indoor athletic and health, physical education, and recreation facilities, and outdoor facilities.
FIGURE I

PALMER HIGH SCHOOL INDOOR ATHLETIC AND
HEALTH, PHYSICAL EDUCATION, AND RECREATION FACILITIES

1. classrooms
2. weight training room
3. gymnastics room
4. physical education
   locker room
5. physical education
   office
6. athletic locker room
7. coaches' office
8. swimming office
9. swimming pool area
10. hallway
11. seating areas
12. basketball gymnasium
13. upper deck:
    wrestling area
14. ice hockey rink
FIGURE II

PALMER HIGH SCHOOL INDOOR AND OUTDOOR
ATHLETIC AND HEALTH, PHYSICAL EDUCATION AND RECREATION FACILITIES

1. indoor facility
2. softball fields
3. soccer-speedball field
4. tennis courts
5. handball courts
6. baseball diamond
7. football field
8. track and field area
PHYSICAL EDUCATION ACTIVITIES PREVIOUSLY OFFERED AT PALMER HIGH SCHOOL

The following are the physical education activities previously offered at Palmer High School. The same activities are offered all three years of high school.

<table>
<thead>
<tr>
<th>Activity</th>
<th>Weeks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Swimming</td>
<td>3</td>
</tr>
<tr>
<td>Touch Football</td>
<td>5</td>
</tr>
<tr>
<td>Basketball</td>
<td>5</td>
</tr>
<tr>
<td>Softball</td>
<td>4</td>
</tr>
<tr>
<td>Wrestling</td>
<td>3</td>
</tr>
<tr>
<td>Handball</td>
<td>3</td>
</tr>
<tr>
<td>Volleyball</td>
<td>3</td>
</tr>
<tr>
<td>Gymnastics</td>
<td>3</td>
</tr>
<tr>
<td>Table Tennis</td>
<td>3</td>
</tr>
<tr>
<td>Health</td>
<td>4</td>
</tr>
<tr>
<td><strong>Total of 36 Weeks</strong></td>
<td></td>
</tr>
</tbody>
</table>

ALLOTMENT OF TIME IN HEALTH, PHYSICAL EDUCATION, AND RECREATION

According to Voltmer (4), time allotment in physical education should be as follows:

**TABLE V**

TIME ALLOTMENT IN PHYSICAL EDUCATION

<table>
<thead>
<tr>
<th>ACTIVITY</th>
<th>GRADE 10</th>
<th>GRADE 11</th>
<th>GRADE 12</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Wks.</td>
<td>%</td>
<td>Wks.</td>
</tr>
<tr>
<td>Aquatics</td>
<td>4</td>
<td>10%</td>
<td>4</td>
</tr>
<tr>
<td>Games and Relays</td>
<td>2</td>
<td>5%</td>
<td>2</td>
</tr>
<tr>
<td>Sports of Higher Organization</td>
<td>12</td>
<td>35%</td>
<td>10</td>
</tr>
<tr>
<td>Health</td>
<td>7</td>
<td>20%</td>
<td>6</td>
</tr>
<tr>
<td>Recreational Sports</td>
<td>4</td>
<td>10%</td>
<td>8</td>
</tr>
<tr>
<td>Rhythms and Dancing</td>
<td>2</td>
<td>5%</td>
<td>2</td>
</tr>
<tr>
<td>Gymnastics and Tumbling</td>
<td>4</td>
<td>10%</td>
<td>3</td>
</tr>
<tr>
<td>Winter Sports</td>
<td>1</td>
<td>5%</td>
<td>1</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>36</td>
<td>100%</td>
<td>36</td>
</tr>
</tbody>
</table>
NEW CURRICULUM RECOMMENDATIONS FOR PALMER HIGH SCHOOL

According to Leslie W. Irwin (2), in his book, The Curriculum in Health and Physical Education, recommendations for physical education are contingent upon many important factors such as facilities, equipment, available space, time allotment, and climatic conditions. In developing new curriculum recommendations for Palmer High School, these factors, and many more were taken into consideration.

GRADE TEN

(4 weeks)
I. Aquatics--facilitate by classifying into groups.
   A. Beginning
   B. Intermediate
   C. Advanced

Lifesaving methods and diving should be introduced, taught, and perfected just as rapidly as the pupils become skillful enough to participate in them. Lifesaving methods will be additional to fundamental strokes and skills.

(2 weeks)
II. Games and Relays

The students enjoy an occasional period of their favorite games and relays of intermediate school days. These games and relays are used on rainy day situations.

(12 weeks)
III. Sports of Higher Organization
   A. Basketball
   B. Soccer-Speedball
   C. Softball
   D. Tennis
   E. Touch Football
   F. Wrestling

(7 weeks)
IV. Health—one week each:
   A. Alcohol education
   B. Venereal disease education
   C. Smoking and cancer
   D. Sex education, family life, parenthood and child care
E. Nutrition and weight control
F. Environmental hazards
G. (Choice)

(4 weeks)
V. Recreational Sports
   A. Volleyball
   B. Badminton

(2 weeks)
VI. Rhythms and Dancing
   A. Folk dance
   B. Square dance
   C. Social dance

(4 weeks)
VII. Gymnastics and Tumbling
   A. Tumbling
   B. Side horse
   C. Long horse
   D. Parallel bars
   E. High bar
   F. Trampoline or mini-trampoline

(1 week)
VIII. Winter Sports
   A. Obstacle races
   B. Fox and geese
   C. Snowball target throwing
   D. Advanced Snow modeling

Total of
36 Weeks

GRADE ELEVEN

(4 weeks)
I. Aquatics
   A. Lifesaving and water safety
   B. Games in water

(2 weeks)
II. Games and Relays

   The students enjoy an occasional period of their favorite games and relays
of intermediate school days. The games and relays are used on rainy day situations.

(10 weeks)

III. Sports of Higher Organization
   A. Basketball
   B. Touch football
   C. Track and field
   D. Softball
   E. Self-defense

(6 weeks)

IV. Health—one week each:
   A. Drugs
   B. Community health programs
   C. Consumer health education
   D. Smoking and cancer
   E. Sex education, family life, parenthood and child care.
   F. (Choice)

(8 weeks)

V. Recreational Sports
   A. Archery
   B. Handball
   C. Golf
   D. Table tennis

(2 weeks)

VI. Rhythms and Dancing
   A. Folk dance
   B. Square dance
   C. Social dance

(3 weeks)

VII. Gymnastics and Tumbling
   A. Tumbling
   B. Side horse
   C. Long horse
   D. Parallel bars
   E. High bar
   F. Trampoline
   G. Still rings

(1 week)

VIII. Winter Sports

Total of 36 Weeks
GRADE TWELVE

(4 weeks)

I. Aquatics
   A. Lifesaving and water safety
   B. Games in water

(1 week)

II. Games and Relays—Used for rainy day situations.

(8 weeks)

III. Sports of Higher Organization
   A. Basketball
   B. Touch football
   C. Softball or baseball
   D. Tennis

(6 weeks)

IV. Health—one week each:
   A. Health careers
   B. International health activities
   C. Smoking and cancer
   D. Childbirth and parenthood
   E. Safety and first aid
   F. (Choice)

(12 weeks)

V. Recreational Sports
   A. Bowling
   B. Table tennis
   C. Croquet
   D. Shuffleboard
   E. Volleyball
   F. Special unit—marbles, jacks, darts, checkers, chess, horseshoes, tiddley-winks, knife throwing games.

(1 week)

VI. Rhythms and Dancing
   A. Folk dance
   B. Square dance
   C. Social dance

(3 weeks)

VII. Gymnastics and Tumbling
   A. All events
   B. two-man stunts
(1 week)

VIII. Winter Sports

Total of 36 Weeks

AN EXAMPLE OF A PHYSICAL EDUCATION CLASS

55 minute class period

1. Dress out .................. 5 mins.
2. Roll call .................... 2 mins.
3. Physical fitness activities .... 10 mins.
   A. Mon., Wed., Fri., upper body development
   B. Tues., Thurs., lower body development
4. Activity ..................... 28 mins.
5. Shower and dress ............. 10 mins.

EVALUATION IN PHYSICAL EDUCATION

EVALUATION OF THE STUDENT ACHIEVEMENT

The Physical Development

The physical development objective cannot be evaluated with a single test because it involves a variety of components. A test battery with different tests for each of the various components is needed.

Probably the most extensively used physical fitness test is that developed under the sponsorship of the American Association for Health, Physical Education, and Recreation. The American Association for Health, Physical Education, and Recreation Youth Fitness Test was first published in 1958 and revised in 1965. (19) It consists of seven test items for boys and girls. The tests and the
component of physical fitness which each measures are given below.

**AMERICAN ASSOCIATION FOR HEALTH, PHYSICAL EDUCATION, AND RECREATION**

**YOUTH FITNESS TEST (2)**

<table>
<thead>
<tr>
<th>Component</th>
<th>Girls</th>
<th>Boys</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arm Strength</td>
<td>Flexed-Arm Hang</td>
<td>Pull-Up</td>
</tr>
<tr>
<td>Abdominal Strength</td>
<td>Sit-Up</td>
<td>Sit-Up</td>
</tr>
<tr>
<td>Speed and Agility</td>
<td>Shuttle Run</td>
<td>Shuttle Run</td>
</tr>
<tr>
<td>Leg Power</td>
<td>Standing Broad Jump</td>
<td>Standing Broad Jump</td>
</tr>
<tr>
<td>Speed</td>
<td>50-Yard Dash</td>
<td>50-Yard Dash</td>
</tr>
<tr>
<td>Arm Power</td>
<td>Softball Throw for Distance</td>
<td>Softball Throw for Distance</td>
</tr>
<tr>
<td>Endurance</td>
<td>600-Yard Run-Walk</td>
<td>600-Yard Run-Walk</td>
</tr>
</tbody>
</table>

National norms are available for each test for boys and girls from the fifth through the twelfth grades. Norms are also available for college men and women.

This American Association for Health, Physical Education, and Recreation Youth Fitness Test possesses a variety of advantages. It requires little equipment, the test items are those with which teachers and students are familiar. The battery can be easily and quickly administered also.

The Motor Skill Development Objective

To evaluate motor skill development requires more than one test. In fact, a battery of tests is required to assess skill in one sport adequately. Skill tests in a wide variety of physical education activities have been developed over the years. Some of these are excellent tests but many have limitations that preclude their use. Their validity coefficients may not be high enough; they may require too much equipment; they may take too long to administer; their reliability may be too low; norms may be lacking; they may have too
limited applicability; they may not be capable of differentiating abilities at all grade levels.

Some of the well known sport skills test include: (4)

1. Hyde Archery Achievement Tests
2. French-Stalter Badminton Skill Tests
3. Lockhart-McPherson Badminton Test
4. Miller Wall Volley Test (badminton)
5. Kelson Test (baseball)
6. Leilich Basketball Test for Women
7. Stroup Basketball Test
8. Johnson Basketball Test
9. Knox Basketball Test
11. Schmuithals-French Field Hockey Tests
12. Borleske Touch Football Test
13. Brace Football Achievement Tests
14. New York State Football Tests
15. Cornish Handball Test
16. New York State Softball Test
17. O'Donnell Softball Skill Test
18. New York State Soccer Test
19. McDonald Soccer Test
20. Hewitt Swimming Achievement Scales
21. Table Tennis Backboard Test
22. Dyer Tennis Test
23. Broer-Miller Tennis Test
24. Russell-Lange Volleyball Test
25. Brady Volleyball Test

The American Association for Health, Physical Education and Recreation has undertaken a project that will greatly assist in the evaluation of motor skill development. The Sport Skills Project involves the development of batteries of skill tests for each of the following activities: archery, badminton, baseball, basketball, football, golf, gymnastics, soccer, softball, tennis, volleyball, and bowling. Test batteries for other sports will eventually be developed.

The Knowledge and Understanding Objective

Physical educators have used knowledge tests for many decades. These
tests have usually been of the objective type. Voltmer and Esslinger (4), in their book, *The Organization and Administration of Physical Education*, gave a list of some published tests that have been statistically validated. The test may include any or all of the following areas: (4)

1. Knowledge of skill performance
2. Rules
3. Strategy or activity patterns
4. Protective requirements
5. Conditioning procedures
6. Effects of activity upon health
7. Codes of etiquette appropriate to the activity
8. Understanding of effective utilization of the organism in movement
9. Factors affecting performance such as age, sex, drugs, nutrition, fatigue, alcohol, and tobacco.

The Social Development Objectives

How can the physical education instructor evaluate how much progress the students under his instruction have made in regard to the social development objectives. Apparently, physical educators do much less evaluation of this objective than they do the physical development, motor skills and knowledge and understanding.

Several different types of tests have been used to measure social adjustment. One of the most commonly used measures is the behavior rating scale whereby observers rate the frequency with which certain types of behavior have been observed. The Blanchard Behavior Rating Scale (6), representative of this type of device (see Table VI), discusses in great detail different types of behavior. Another approach to the assessment of progress toward the social objective is by means of a social acceptance determination. These instruments involve students rating their fellow students on the basis of their social
acceptance. One type developed by Cowell is called the Cowell Personal Distance Scale (1) (see Table VII). Each individual's score in a class or group is obtained by adding the total weighted scores given by all the participants and then dividing by the number of participants. The lower the index, the greater the degree of acceptance by the group. Sociometric techniques involving the use of the matrix chart and sociogram are also of value in determining the most popular and the isolated students.

**TABLE VI**

**BLANCHARD BEHAVIOR RATING SCALE**

(refer to page 41)
TABLE VI
BLANCHARD BEHAVIOR RATING SCALE

Name: ___________________________ Grade: ______ Age: ______ Date: __________
School: __________________________ Name of Rater: _______________________

BEHAVIOR RATING SCALE

<table>
<thead>
<tr>
<th>Personal Information</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Leadership</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Popular with classmates</td>
</tr>
<tr>
<td>2. Seeks responsibility in the classroom</td>
</tr>
<tr>
<td>3. Shows intellectual leadership in the classroom</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Positive Active Qualities</th>
</tr>
</thead>
<tbody>
<tr>
<td>4. Quits on tasks requiring perserverance</td>
</tr>
<tr>
<td>5. Exhibits aggressiveness in his relationship with others</td>
</tr>
<tr>
<td>6. Shows initiative in assuming responsibility in unfamiliar situation</td>
</tr>
<tr>
<td>7. Is alert to new opportunities</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Positive Mental Qualities</th>
</tr>
</thead>
<tbody>
<tr>
<td>8. Shows keenness of mind</td>
</tr>
<tr>
<td>9. Volunteers ideas</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Self-Control</th>
</tr>
</thead>
<tbody>
<tr>
<td>10. Grumbles over decisions of classmates</td>
</tr>
<tr>
<td>11. Takes a justified criticism by teacher/classmate without showing anger or pouting</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Cooperation</th>
</tr>
</thead>
<tbody>
<tr>
<td>12. Is loyal to his group</td>
</tr>
<tr>
<td>13. Discharges his group responsibilities well</td>
</tr>
<tr>
<td>14. Is cooperative in his attitude toward his teacher</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Social Action Standard</th>
</tr>
</thead>
<tbody>
<tr>
<td>15. Makes loud-mouthed criticism and comments</td>
</tr>
<tr>
<td>16. Respects the right of others</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Ethical Social Qualities</th>
</tr>
</thead>
<tbody>
<tr>
<td>17. Cheats</td>
</tr>
<tr>
<td>18. Is truthful</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Qualities of Efficiency</th>
</tr>
</thead>
<tbody>
<tr>
<td>19. Seems satisfied to &quot;get by&quot; with tasks assigned</td>
</tr>
<tr>
<td>20. Is dependable and trustworthy</td>
</tr>
<tr>
<td>21. Has good study habits</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Sociability</th>
</tr>
</thead>
<tbody>
<tr>
<td>22. Is liked by others</td>
</tr>
<tr>
<td>23. Makes a friendly approach to others in the group</td>
</tr>
<tr>
<td>24. Is friendly</td>
</tr>
</tbody>
</table>
### TABLE VII
COWELL PERSONAL DISTANCE SCALE

Grade

<table>
<thead>
<tr>
<th>What to do</th>
<th>I would be willing to accept him:</th>
</tr>
</thead>
<tbody>
<tr>
<td>If you had full power to treat each student in this group as you feel, just how would you consider him? Just how near would you like to have him to your family? Every student should be checked in some one column. Circle your own name and be sure you check every student in one column only.</td>
<td>Into my family as a brother</td>
</tr>
<tr>
<td></td>
<td>As a very close pal</td>
</tr>
<tr>
<td></td>
<td>As a member of my gang or club</td>
</tr>
<tr>
<td></td>
<td>On my street as a next-door neighbor</td>
</tr>
<tr>
<td></td>
<td>Into my class at school</td>
</tr>
<tr>
<td></td>
<td>Into my school</td>
</tr>
<tr>
<td></td>
<td>Into my city</td>
</tr>
<tr>
<td>1. Stanley White</td>
<td>1</td>
</tr>
<tr>
<td>2. James South</td>
<td>2</td>
</tr>
<tr>
<td>3. Dick Booth</td>
<td>3</td>
</tr>
</tbody>
</table>

#### SUMMARY OF REPORT

Until recent years rapid progress in the development of a school program of health and physical education has been impeded by a number of factors. The influence of various European systems of physical education, the attitude toward play held by early American educators, the development and overemphasis of athletics for the few, the lack of properly prepared teachers, and the rapid
growth in enrollment of the public schools have contributed to a slow development in the school program of physical education.

The programs of the early Latin grammar schools did not provide for any form of physical education, athletics, play or recreation.

In recent years there has been a growing emphasis on the development of health education materials in the public schools. The recent emphasis has been due largely to the realization on the part of school administrators and teachers for the need of a more functional health program. Teachers gradually became conscious of the need for health education and practice.

The industrial development in America brought about a greater need for recreation. Living in urban centers with increasing amounts of leisure time gradually brought groups of people to realize the need for recreation.

Physical education, as a part of the school curriculum, must share the function of education. That function is related to helping individuals grow, develop, and adjust to the problems of individual happiness, to competent membership in the family, to constructive citizenship in a democracy, and to appreciative understanding of the ethical values that undergird our world society.

Physical education objectives have been analyzed as they were stated by twenty-two different authors. Altogether 493 different items were listed. The objectives have been summarized under these six headings: health, physical or organic development, mental-emotional development, neuro-muscular development, social development, intellectual development and lastly, recreational development.

Health has been accepted as one of the major objectives in education. There are many specific reasons for including health instruction in the total
school curriculum, some of which include:

1. The school is the most logical place for finding professional people with sufficient information in the health sciences.
2. The school has the ability to provide scientific information in an unbiased manner.
3. The school can provide the students with knowledge that can aid in the preventional of acute, chronic, and degenerate diseases.
4. The school can provide the students with the knowledge necessary to administer emergency care in the event of an accident or sudden illness.
   and lastly,
5. The school can provide the students with an understanding of the meaning and value of total fitness in these days of stress, tension, and change. (3)

In developing a physical education program it is important that the objectives or functions of the program be met. In meeting these objectives, physical educators must also be aware of the purposes of the educational system and how their physical education objectives are derived from the educational purposes.

In preparing a health education program it is also important that there are specific reasons and objectives of health instruction. Before presenting the material to the students, three important considerations are involved in determining the content of the secondary school health program. Physical education instructors must know the health interests of the students, the strengths and weaknesses in health content area, and the needs of students.

There are a number of important factors affecting the curriculum in physical education. The facilities, equipment, space, state legislation, marks in physical education, size of classes, time allotment, climatic conditions, and community recreation facilities are several of these important factors. In developing a physical education program or recommending a change in
the present program, teachers must consider the facilities available at the school. This was mentioned above as an important factor affecting the curriculum in physical education. Also teachers must, when recommending changes in the present program, look into the activities previously offered at the school. This will aid in improving the present program.

Physical educators must then decide upon the activities to be offered in the physical education program. Time allotments in health, physical education, and recreation should be sought by exploring the information submitted, in publications, by noted authorities in the field.

Of course, physical education's entire program should connote directly to the objectives of the field, and this should then be evaluated to a great extent at the end of each unit or activity. Also the total program must be evaluated. Besides the program evaluation, the main concern is the evaluation of student achievement. There are many ways in which student achievement can be evaluated.

Physical education is a challenging field and physical educators definitely need to evaluate their programs and improve them to the utmost.
BIBLIOGRAPHY
BIBLIOGRAPHY

A. BOOKS


B. PERIODICALS


C. PAMPHLETS


D. UNPUBLISHED MATERIAL

RECOMMENDATIONS FOR AN IMPROVED
HEALTH, PHYSICAL EDUCATION, AND RECREATION CURRICULUM
AT PALMER HIGH SCHOOL, COLORADO SPRINGS, COLORADO

by

JACK RICHARD HARRIS

B. A., Arizona State University, 1968

AN ABSTRACT OF A MASTER'S REPORT

submitted in partial fulfillment of the
requirements for the degree

MASTER OF SCIENCE

DEPARTMENT OF PHYSICAL EDUCATION

KANSAS STATE UNIVERSITY
Manhattan, Kansas
1970
The purpose of this study was to increase the effectiveness of the total educational program through a recommended physical education program for Palmer High School in Colorado Springs, Colorado. This was done by (1) reviewing the administrative time allotments and policies for physical education, (2) reviewing literature written in the field of physical education by noted authorities, and (3) making recommendations for more activities and other criteria for the better development of the program.

The selection of activities was based on the concept that the modern school district must provide an adequate amount of equipment to accompany the ideal facilities, in order to administer the proposed program. The ideas of noted authorities were used in composing the recommended program in this study.

The findings contained in this report may be used as reference material by the faculty, administrators, board of education, and patrons of the district for setting up a physical education program or as a basis for making an examination of their own program.

Information for this study was found in literature written by many noted authorities from various fields, including physical education.

Recently, major emphasis has been placed upon physical education as a major area in the school program, not only for senior high and junior high, but also for the elementary schools.

The activities used in the eleventh grade were previously used in the tenth grade; progressions were emphasized through advanced drills and skills in these same activities. There were a number of new activities included to maintain their interests and provide variety over the previous year. The new activities provided opportunities for each student to compete on an individual basis.
Palmer High School's total physical education program had not been developed completely. A total program would include health, physical education, and recreation. The program was lacking in the area of health, and more so in the area of recreation. The program included mainly sports of higher organization in which carry-over value is practically alleviated.

Recommendations were made to develop a total health, physical education, and recreation program by including longer and more thorough health units and more physical education activities with carry-over value for use in later life.

The over-all objectives which were used in this report are as follows: (1) health, physical, or organic development, (2) mental-emotional development, (3) neuro-muscular development, (4) social development, (5) intellectual development, and (6) recreation development.

The intention of this curricula was to meet the needs and interests of the students, to adhere mainly to fundamentals for the tenth grade, to allow sufficient time for the skills to be learned reasonably well in the eleventh grade; and to provide instruction for learning of advanced skills in the twelfth grade.

It is felt that the program composed will help in the development of better habits, skills, and attitudes that will contribute to the students' health and happiness throughout life.