AN EVALUATION OF MONTANA HIGH SCHOOL PHYSICAL EDUCATION PROGRAMS BY NORTHERN MONTANA COLLEGE FRESHMEN

BY

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CHAPTER I

INTRODUCTION

The State of Montana is large and sparesely populated. Due to the great distances between communities and areas of greater population, there is much variance in the size of high schools in the State.

Of the 185 high schools in Montana, 100 have an enrollment of less than 100 pupils with 46 of that group having fewer than 50 pupils. Twenty-nine schools have 100 to 150 pupils enrolled while 37 have from 150 to 400 pupils. Nineteen schools have enrollment ranging from 400 to 2,500.[1]

Each of Montana's schools, regardless of the differences in size, through its administrator and community believes in equality of opportunity for individual development. That education in America has accepted this point of view was clearly shown by the President's Commission[2] on Higher Education in 1947 in a statement: "It is obvious, then, that free and universal access to education, in terms of interest, ability and need of the student must be a major goal in American education."

Physical education, as a phase in the educational programs of today's schools, has arrived at a state of acceptance. It is undoubtedly here to stay, and thus requires constant evaluation and inquiry to keep the program in step with the advance of educational thought and practice.

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[1] Montana High School Association, Enrollment of Member Schools -- 1955, 1956, and 1957. (Based on Part "A" Reports for 1955, 1956, & 1957).

[2] Higher Education for American Democracy, Vol. 1, "Establishing the Goals," U. S. Office of Education, 1947, p. 36.

Society has set up the school as an effective agency to promote the development of the individual's mind, body, morals and manners which society thinks will enable the individual to live a more complete and effective life than would otherwise be possible.

Physical education should be thought of not as a frill or ornament attached to the institution or school but rather as an integral phase of the project of educating the whole individual. It should be made clear that in discussing physical education and youth fitness the total fitness should be stressed, as pointed out by the President's Council on Youth Fitness[3] in the statement, "reference is made to total fitness with all components granted appropriate weight; spiritual, emotional, mental, social, and physical." Physical education should promote any desirable changes in the individual which can be promoted through the educational procedure. This point of view has been substantiated by Irwin as shown in his statement:

> The type of fitness sought through physical education programs reaches far beyond mere muscular development and body conditioning. It is meant to include a more or less complete development of the human organism. Functional health, freedom from physical defects, the proper educational background in maintaining fitness, mental health, courage, stamina, endurance, skill and the will to do good for a just cause are some of the important phases of the physical education or fitness programs in addition to physical development and conditioning.[4]

Following this line of thinking, regarding the importance of total fitness, it is reasonable to ask whether or not the physical education

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[3]Personal letter to the writer from Shane MacCarthy, Executive Director, President's Council on Youth Fitness, dated July 19, 1957.

[4]Irwin, Leslie W., The Curriculum in Health and Physical Education, St. Louis, C. V. Mosby Co., 1944, p. 21.

programs in Montana high schools are meeting their aims and objectives as prescribed in the Montana Course of Study for High School Physical Education and Health[5] as well as those suggested by other organizations of authority of which the President's Council on Youth Fitness[6] is one. The desire to secure the answers to these questions led to this investigation.

Statement of the Problem

Attainment of sports records is greater than at any time in the history of our Nation. Great advances have been made in the field of medicine as a result of constant study and research which in turn has raised the health standards of the Nation. Facilities for recreation have increased and improved due mainly to the need for them expressed by the general population with the greatly increased amount of leisure time available. In spite of these achievements, the Nation is still confronted with many problems concerning the effectiveness of the physical education and fitness programs. Among the many problems are the following, proposed by the President's Council on Youth Fitness:

1. Our scientific and technological advances of today, while bringing an ease to living, deprive us of needed physical activity.

2. The youth of our Nation are affected primarily by the existence of press-button gadgets and other devices tending toward habits of inactivity.

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[5] Course of Study State of Montana High School Physical Education and Health, Tribune Printing Company, Great Falls, 1932, pp. 1-12. (Hereafter referred to as "Montana Course of Study. . .").

[6] President's Council on Youth Fitness, a report to the President of the United States on the Annapolis Conference, June 18-19, 1956. Published by the President's Council on Youth Fitness, U. S. Government Printing Office, Washington, D. C., 1956. (Hereafter referred to as "Council on Youth Fitness. . .").

3. The effect of automation is found in rural as well as urban life.

4. The ill effects of soft living habits are not seen too readily by the generation so affected.

5. With more leisure time available to youth, profitable methods must be adopted as a pattern of current life to achieve physical fitness, which is an integral part of total health.

6. The strength of our Nation tomorrow is the fitness of its youth today.[7]

Physical education classes should be taught with definite[8] purposes in mind. The problem of this investigation has been to determine the effectiveness of such a high school's physical education program as judged by the pupils' opinions of the program offerings they experienced in high school. The problem resolved into the answering of three questions. Are the general needs of all pupils being met? Are the following general requirements and suggestions contained in the State Course of Study being met?

1. To give students a wholesome type of civic-social-moral training.

2. To help students spend their leisure time more profitably; to develop hobbies and teach games that can be used in adult life.

3. To train for physical, mental and emotional health.[9]

And since the problem of physical fitness is one of national scope, there is also the question of the extent to which the physical education programs

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[7] Ibid., p. 1.

[8] Definite in that the needs, abilities and interests of all pupils are considered while the classes are being taught.

[9] Montana State Course of Study, op. cit., p. 12.

of Montana high schools are meeting the criteria set up by the Council on Youth Fitness which has made the following recommendations:

1. Fitness programs should be developed to meet recognized standards.

2. Fitness programs should be designed for maximum appeal to stimulate voluntary participation as well as individual achievement.

3. Every boy and girl, as an integral part of his or her education, should have a balanced program of physical and health education and recreation. Such programs should provide exercise to develop strength, flexibility, and other qualities as well as skills for personal enjoyment and development.

4. School authorities should reevaluate the total curriculums and citizen's groups their activities to see that programs to meet physical fitness needs are adequate in content and stature.

5. In designing programs for the fitness of youth, consideration should be given to the involvement of youth themselves in the planning and in the conduct of such programs.

6. Programs should be designed to motivate fitness of youth for normal peacetime living.[10]

The problem in summary is: (1) how effective are Montana high school physical education programs from the pupil's viewpoint and (2) how effective are they in relationship to state and national recommendations?

Procedure

Literature relative to physical education was examined to secure opinions of authorities in the field of physical education. The reports of the Council on Youth Fitness[11] were used to ascertain the degree to which the state physical education programs are including national

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[10] Council on Youth Fitness, op. cit., pp. 4-5.

[11] Ibid.,

recommendations. The Montana State Course of Study[12] was used as a basis for determining the suggested content of the physical education programs at the state level.

To determine pupil evaluation of the content of the physical education programs being offered, a questionnaire was administered to 130 members of the 1957-1958 freshman class at Northern Montana College, Havre, Montana. Personal interviews were held with a sampling of the freshman boys and freshman girls to whom the questionnaire had been administered as a check on the validity of the questionnaire results.

The general function of physical education in the public schools is to assist in providing a medium for normal growth and natural development of each pupil. In this respect physical education has, in its aims and objectives, a close relation to general education. The strength of this relation as revealed in the review of literature will be brought out in Chapter II.

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[12]Montana State Course of Study, op. cit.

CHAPTER II

REVIEW OF THE LITERATURE

Modern education includes physical education as a part of the curriculum and, therefore, physical education as an educational experience is expected to make its contribution to human development. The entry of physical education into the school program with its subsequent growth to the point where it was considered an integral part in the proper development of youth is ample evidence of the need for continued thought, study, and research by those in the profession. This need has been pointed out by Nash in a statement:

> There has been much confusion of thought regarding philosophy and thinking in physical education. We Americans, as a pioneer nation, have been handicapped in that no philosophy of recreation was developed, partly because of our attitude toward play and partly because of our rugged pioneer history. Leaders in physical education must rise above the confusion of thought and relate their philosophy to the facts as they find them, giving new meanings and objectives to their programs.[1]

One of the great needs is to clearly define the role of physical education with its relationship to general education.

Physical education today is seen in many forms and is presented in many ways. There is no standard program which has been adopted in all schools. In fact, it is quite possible that there are no two programs alike anywhere unless it might be the "game playing" phase. It is also doubtful if there are any two definitions of physical education that are exactly alike although in content and ideas some definitions may be

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[1] Nash, Jay, Physical Education: Interpretation and Objectives, New York, A. S. Barnes & Company, 1948, p. 32.

similar. As used in this investigation, the definition of physical education involves measures that achieve body health and the appropriate motor activity as means of assuring a sound body and mind as indicated in a statement in the Montana State Course of Study:

> ". . . is that which sees in measures insuring bodily health and the right kind and amount of motor activity an avenue of approach through which the whole individual may be influenced for good in mind and character as well as in body; it employs the word physical to denote the means and not the end."[2]

In order to proceed efficiently and with dispatch toward any goal it is essential that the goal be known. Furthermore, attainment which is to be educationally satisfactory, is only possible if the end to be gained is worthy; it is not sufficient to attain just any goal. Consequently the physical educator, in addition to adequate aims must have worth while objectives. The express purpose of the review of literature was to establish the close relationship between physical education and general education goals.

Relationship of Physical Education to General Education Aims

One can scarcely think of any secondary school program which is not based fundamentally on good health. Ultimately all issues must be determined by health. Physical vigor is a splendid background for a trained mind. It will be recalled that, under the impetus of World War I, the bulletin on Cardinal Principles of Education[3] placed health at the head of the list of major objectives.

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[2]Montana State Course of Study, op. cit., p. 7.

[3]U. S. Bureau of Education Bulletin, No. 35, 1918, Washington, D. C., Government Printing Office.

Since physical education is a part of general education, it has the same general goals. The closeness of this relationship may be shown by pointing out numerous ways in which physical education contributes to each of these goals. There is increased recognition today that good health can play a very important role in helping to make individuals aware of their responsibility for not only their own health but also for that of others.

The aims and objectives of physical education now give more attention to the health phase. The modern student of physical education is being trained in directions that are more related to living than mere chinups or bench presses. The emphasis is being placed on a functional program rather than on formal, uninteresting drill, that has a negative rather than stimulating influence.

The tendency today is to organize a program that provides knowledge, skill, control and aspirations as outgrowths of activities which in themselves are desirable ends and satisfying to human interests and desires. In the opinion of Oberteuffer[4] the attitude of confining physical education to merely developing muscles is being replaced by a more healthy and scientific attitude. A well-developed program of physical education will seek multiple outcomes, some of which are immediate, some long range, but all of which are within the reach of competent teaching.

In organizing a program of physical education the aim of the program is of primary concern. In military terms, an aim may be to win the war; an objective to win a particular battle, or to sink a particular

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[4]Oberteuffer, Delbert, Physical Education, New York, Harper and Brothers, 1951, p. 41.

ship. In educational terms an aim[5] may be to develop the human personality; an objective, to have the child criticize his own performance. The aims and objectives of physical education indicate it has a major responsibility in general education. The part it should play with reference to each of the major goals of general education will be covered individually in the following sections.

Relationship of physical education to health. Good health is usually associated with the person who is physically active. The characteristic picture of the student or scholar shows him sitting down. The typical picture of the athlete shows him standing up. In these pictures can be found one of the major contributions of physical education to healthful school living. The three R's and all their cultural corollaries are sedentary types of work. Completely healthful school living is impossible without adequate provisions for vigorous physical activities. Physical education provides necessary change from the typically sedentary nature of the activities of other parts of the school day. Oberteuffer has pointed to the great need for the daily change from the sedentary to the physical activity type in the best interests of health as well as achievement in a statement:

> Children cannot, with profit, engage in reading, writing, discussions, and other comparatively quiet activities for too long periods of time. They require variations in activities; they need opportunities to run, jump, climb, and play. The need for frequent periods of big muscle activity is particularly great for young children.[6]

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[5]Aim has been used in this investigation to denote the direction or the general purpose. Objective has been used to mark out the specific points along the way to the aim.

[6]Oberteuffer, D., "A Decalogue of Principles," Journal of Health and Physical Education, 18: 50-54, January, 1947.

Participation in such vigorous and energetic actions as running, jumping, climbing, and playing lead to success in the attainment of the fundamental skills or processes by youth.

Relationship of physical education to fundamental processes. The fundamental processes are the skills common to America in general and one's own locality in particular. Mastery of the fundamental skills of running, jumping, throwing, etc., enable the individual to gain standing and recognition among his fellow students as well as personal satisfaction. The fundamental skills of physical education are closely correlated to the basic fundamental processes of general education, namely those of reading and writing which enable one to converse and communicate. They are fundamental chiefly because the child needs them now. It is unpleasant for an individual to remain at the grammar school level in the matter of physical skills during adolescence and early maturity. Physical education is one phase of school work that lends itself particularly to the development of character and citizenship training.

Relationship of physical education to citizenship training. Citizenship, or training youth to become good citizens, is a responsibility of the entire school. Voltmer[7] pointed to physical education's important part in developing citizenship when he said that, "the physical education class provides more than just a place to discuss character education theory; it furnishes a laboratory for actual practice. Character is developed much more surely by living it out than by hearing about what should be done and what should not be done."

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[7]Voltmer, E. F., Esslinger, A. A., The Organization and Administration of Physical Education, New York, Appleton-Century-Crofts, Inc., 1938, p. 23.

The whole physical education setup provides real rewards and punishments which with proper guidance will serve to encourage sportsmanship, cooperation, sociability, self-control, and leadership which are qualities of character and citizenship that are being sought in our youth.

The competitor is an active citizen, not a passive one. It is the active citizen who receives training. There are rules that must be obeyed as he moves in the direction of his major ambition of winning a game or performing well. Democracy, as a way of life, is more effective if it is learned realistically. Rugg[8] pointed to physical education as a plan for developing democracy when he stated, "physical education offers many opportunities for training in democratic action." To further emphasize the democratic values that can be taught in physical education classes, Cassidy[9] declared that one of the demands on physical education was, "to teach boys and girls of the United States so that they will learn to believe in democratic behavior and act according to those beliefs." It is generally accepted by society that good physical health, character, and being a good citizen are assets to an individual in securing and maintaining employment.

Relationship of physical education to vocational training. There are numerous vocational opportunities in the field of physical education. The skills and knowledge gained in physical education are of direct economic value to many. Those who are able to coach or teach physical education, as well as other school subjects, are able to secure positions as

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[8]Rugg, Harold, Foundations for American Education, World Book Co., New York, 1947, p. 215.

[9]Cassidy, Rosalind, "New Directions in Physical Education," Journal of Health and Physical Education, December 1948, p. 694.

teachers. The increased demand for recreation and playground directors provides another vocational advantage for those with suitable physical education experience. Through physical education, many are prepared in part for some full or part-time vocation. There is also the health fitness aspect making the individual better in any vocation since vocational success depends on one's health and staying on the job. There are those, according to Nixon,[10] who have assured us that, notwithstanding the emphasis which education has placed upon training for vocational efficiency, it is much more important for the school to be vitally concerned with educating for the leisure time of the people in vocations.

Relationship of physical education to use of leisure time. The inevitable result of all our scientific progress of today is going to be an increase in the available time for leisure activities. The degree to which carry-over aims of physical education are achieved at present is problematical. Mitchell[11] raised this question when he asked, "Have you evidence of the carry-over of your program in concrete ways?" It is a mistake to criticize many of the physical education activities on the count that they do not provide carry-over values for adult life. Nevertheless, it is a responsibility of physical education to provide fundamental skills and knowledge which may be of value for recreation or leisure activities during adult life. It may be said that proper training and correct habit formation in youth may lead to carry-over values in

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[10]Nixon, E. N., and Cozens, F. W., An Introduction to Physical Education, W. B. Saunders Company, Philadelphia, 1941, p. 185.

[11]Mitchell, E. D., "Carry-Over Evidences in Physical Activities," Journal of Health and Physical Education, IX, September 1938, p. 422.

adult life which may be utilized to help the individual continue to be active during his periods of leisure.

Some of the contributions physical education can make toward the general education of young people have been pointed out. If physical education teachers recognize that their program is a part of the over-all education of youth, the physical education program will at all times be in line with the main purposes of education in general which Douglass has expressed so well in a statement:

> Education should produce a self-directive, self-reliant individual, free from mental conflict, healthful in a physical sense, poised in contacts with others, conscious of the problems which concern the social groups of which he is a part sympathetically inclined toward his fellows, appreciative of the finer things in life -- in a word, education should produce the integrated personality.[12]

It has been pointed out that there is need for continued inquiry and research by those in the field of physical education, to determine not only what should be offered for the present but also to consider the needs of the general public now working in vocations. Physical education provides one angle of approach in educating the entire individual while giving consideration to the physical, mental and social aspects.

Activities selected for inclusion in the physical education program should first be subjected to consideration from the point of view of their contribution to the total and complete development of the child. Activities from which a physical education program may be developed will be considered in Chapter III.

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[12]Douglass, A. A., Modern Secondary Education, Boston, Houghton Mifflin Company, 1938, p. 223.

CHAPTER III

SUITABLE ACTIVITIES FOR INCLUSION IN A PHYSICAL EDUCATION PROGRAM

Physical education activities represent the heart of the physical education program. They are the means for accomplishing both physical education and educational objectives. They represent the media which attract the attention of the student, and through participation aid him in the achievement of life's goals. Because the physical education activities are so important to the physical education program they must be selected with considerable care.

The physical education program, as finally worked out, should be a well-rounded one. It is important to eliminate from the physical education program, all purely muscle-centered activities in favor of a program of functional activities, such as illustrated by sports, games, dance, tumbling, self-testing sports, and similar natural movements, individualized where necessary and possible.

That there is no standardized curriculum content in physical education is a cause of concern to some physical educators. Irwin[1] points out, however, that the parallel drawn between the content of academic courses and physical education cannot be supported. There are too many factors that affect the physical education program that do not affect academic subjects. For most academic subjects approximately all that is needed to conduct a course are classrooms, laboratories, and accompanying equipment according to the standards of the day. In physical education

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[1]Irwin, Leslie W., The Curriculum in Health and Physical Education, St. Louis, C. V. Mosby Company, 1944, p. 55.

such things as both indoor and outdoor space, facilities, equipment, climate, and many other factors of more or less importance enter into the final determination of the curriculum content.

Determination of the type of activities for the physical education program depends upon the expected contribution of physical education to the complete education of youth, and reflects the depth of understanding of those responsible for planning the course.

Factors to be Considered in the Selection of Physical Education Activities

The potential contributions of physical education to the growth and development of children can be turned into realities only through the development of a comprehensive program. The best program of activities is the one which gives the greatest promise of meeting the needs of youth.

The ideal program is difficult to achieve, however, the ideal can to approached in most schools if all the elements involved in the selection of activities are given proper consideration. Nixon and Cozens have stated that the following considerations are of prime importance:

1. The program must be varied enough to offer activities appropriate to the needs and conditions represented in the entire group of students.
2. There must be an accurate procedure in use for determining the specific types of activities in which the individual should engage.[2]

The physical education class program should provide students the opportunity to receive instruction, develop essential physical skills,

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[2]Nixon, Eugene W., Cozens, Frederick W., Introduction to Physical Education, W. B. Saunders Company, Philadelphia, 1948, pp. 174-175.

and have enjoyable educational experiences. It is here that opinions are formed and attitudes are developed in respect to physical education. The fact that some individuals grow into adulthood with an indifferent or unfavorable attitude toward physical education can often be traced back to the physical education they were exposed to in school. To some individuals it was something that was jammed down their throats. To others it was presented in an uninteresting manner and seemed unimportant, something to skip as often as possible. To still others it was an experience where they were ignored because they had little skill.

To best serve the pupils in the physical education class the program of activities must be planned in accordance with the needs and interests of those being served. Bucher proposes these several criteria for the selection of physical education activities:

1. Activities should be selected in terms of the values they have in achieving the objectives of physical education. This means they would not only possess potentialities for developing physical fitness but also would have implications for developing the intellectual, emotional, and social make-up of the individual.

2. They should be adaptable to the growth and developmental needs and interests of children and youth. The needs of individuals vary from age to age. Consequently, activities and the pattern or organization must also change if these needs are to be met. The activity must be suited to the child, not the child to the activity. Wherever possible, students should be allowed some choice in the activities in which they participate.

3. Activities, of course, must be selected in the light of the facilities, supplies, equipment, and other sources available in the school or community. One cannot plan an extensive tennis program if only one court is available.

4. Activities should be selected not only with a view to their present value while the child is in school but also with a view to postschool and adult living. Skills learned during

school days have potentialities for use throughout life, thus contributing in great measure to enriched living. Patterns for many skills utilized in adult leisure hours are developed while the individual is in the formative years of childhood.

5. Activities must be selected for health and safety values.

6. Activities should be selected which have potentialities to elicit the correct social and moral responses through high quality leadership.

7. Activities should reflect the democratic way of life.[3]

LaPorte,[4] in an article stated that the interests of high school boys are predominantly in team and individual athletics. Boys this age have a highly developed competitive spirit and derive great enjoyment from well-organized team play. In regard to boys' needs, a considerable part of the program should be devoted to big muscle activities.

High school girls, in addition to their natural interest in dancing, desire and need participation in athletics. Today the purely formal program for high school girls is unpopular and out-of-date. With the exception of a few activities the girls are interested in the same sports as boys. This is fortunate for girls need big-muscle play activities, particularly team activities, to develop those qualities such as cooperation, loyalty and leadership.

These suggested factors in the areas of rhythmics and so on should be taken into account in formulating the physical education program. This suggests that selection of activities suited to the needs of the

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[3]Bucher, Charles A., Administration of School Health and Physical Education Programs, St. Louis, C. V. Mosby Company, 1958, pp. 348-349.

[4]LaPorte, W., "Selection and Adaptation of Activities," Research Quarterly, May 1935, pp. 9-14.

group be dealt with is a problem which requires careful consideration in planning activities to meet the general needs of youngsters.

Nature and Type of Suggested Activities for a Physical Education Program

In selecting activities for a physical education program the immediate and future needs of boys and girls must be considered. Members of the Council on Youth Fitness were in agreement that attention should be given to such aspects as:

> Physical efficiency that is based on sound functioning of bodily processes and the attainment of endurance, strength, agility and coordination.
>
> Skills and understandings, that lead to safe and healthful living and encourage participation in satisfying recreation activities with one's own age group, with family members, and with others.
>
> Interests in activities that release tension, provide creative outlets, build health and strength, and develop character and good sportsmanship.[5]

Activities that are currently used in physical education programs throughout the country may be classified in several ways. Williams and Brownell, utilize the following:

1. Fundamental skills (including running, throwing, climbing, etc.)
2. Games and sports (includes aquatics)
3. Rhythmic activities
4. Stunts (includes self-testing activities, gymnastics and tumbling)

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[5] Fitness of American Youth, June 18-19, 1956, U. S. Government Printing Office, Washington, D.C., 1956, p. 35.

5. Corrective or adaptive activities

6. Recreational activities (including hiking, free play, etc.)[6]

The State Course of Study suggests that the variety of activities to be included in the physical education program be classed as:

1. Gymnastics and marching

2. Corrective exercise

3. Hygiene teaching

4. Utilization of other subjects and out-of-school activities

5. Dancing and dramatic activities

6. Games of low-graded organization

7. Individual athletics, stunts and apparatus work

8. Organized sports[7]

A survey conducted by Bucher[8] produced a list of physical education activities that are offered throughout the country. They indicate current offerings in physical education programs in the United States.

Team Games	Rhythms and Dancing
Baseball	Folk dancing
Basketball	Gymnastic dancing
Field hockey (women only)	Modern dancing
Flag bootball (men only)	Rhythms
Football (men only)	Square dancing
Soccer	Social dancing
Speedball	Tap dancing
Touch football	
Volleyball	

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[6]Williams, Jesse F., and Brownell, Clifford Lee, The Administration of Health Education and Physical Education, Philadelphia, 1951, W. B. Saunders Co., p. 95.

[7]Montana State Course of Study, op. cit., p. 19.

[8]Bucher, Charles A., Foundations of Physical Education, St. Louis, The C. V. Mosby Company, 1956, pp. 32-33.

Outdoor Winter Sports

Ice hockey
Roller skating
Skating
Skiing
Snow games
Tobogganing
Snowshoeing

Water Activities

Canoeing
Diving
Lifesaving
Rowing
Swimming
Sailing
Water games

Other Activities

Camping and outdoor activities
Combatives
Correctives
Fly-tying
Games of low organization
Relays
Self-testing activities

Gymnastics

Acrobatics
Apparatus
Obstacle course
Pyramid building
Rope climbing
Stunts
Trampoline
Tumbling

Formal Activities

Calisthenics
Marching

Dual and Individual Sports

Archery
Badminton
Bait and fly casting
Boxing (men only)
Bowling
Deck tennis
Checkers (women only)
Darts (women only)
Fencing
Fishing
Golf
Handball
Horseback riding
Horseshoes
Paddle tennis
Rifle
Rope skipping
Shuffleboard
Squash
Table tennis
Tennis
Tether ball
Track and field
Wrestling (men only)

The purpose in collecting information concerning suitable activities for a suitable physical education was to provide a basis from which to evaluate the physical education programs of Montana high schools. The evaluation will be based on the content of the state high school programs in relation to state and national recommendations; pupil evaluation will

be determined from the results of a questionnaire administered to 130 Northern Montana College Freshman students and from personal interviews held with a sampling of the freshman boys and girls.

CHAPTER IV

RESULTS OF THE QUESTIONNAIRE AND PERSONAL INTERVIEWS

The purpose of this investigation was to evaluate the physical education programs of Montana high schools as judged by the pupils' opinion of the program offerings they experienced in high school and in light of state and national requirements and recommendations.

To determine pupil evaluation of the content of the physical education programs being offered in high school, a questionnaire was administered to 130 members of the 1957-58 freshman class at Northern Montana College, Havre, Montana. Personal interviews were held with a sampling of the freshman boys and girls to whom the questionnaire was administered as a check on the validity of the questionnaire results.

Without competent teaching, adequate facilities and equipment and a sufficient time allotment it would be difficult, if not impossible, to have a satisfactory physical education program. Therefore, in addition to the rating of activities, the following information was sought: (1) number of class periods per week, (2) length, in minutes, of the physical education class period, (3) rating of facilities and equipment available as good, fair or poor, and (4) rating the adequacy of instruction received as good, fair or poor. The treatment of the results is given in the following sections.

Number and Length of Physical Education Class Periods Per Week

Few high schools are likely to include all of the different types of activities suitable for use in physical education. Unless there are

unlimited amounts of time available for physical education, it is neither desirable nor necessary to attempt to include all the potential activities. Physical education leaders[1] believe that one hour a day would be a desirable allotment of time for physical education classes.

According to the Montana Course of Study[2] the minimum amount of time that should be spent on physical education is 120 minutes per week. The questionnaire results, as shown in Table 1, clearly indicate that many of the high schools of Montana are not meeting the recommended time allotment.

TABLE 1. APPROXIMATE NUMBER OF CLASS PERIODS AND TIME ALLOTTED PER WEEK TO PHYSICAL EDUCATION IN MONTANA SENIOR HIGH SCHOOLS AS REPORTED BY NORTHERN MONTANA COLLEGE FRESHMEN.

Time	Enrollment			
	Fewer than 100 pupils	100 to 150 pupils	150 to 400 pupils	Over 400 pupils
Length of class period	45 min.	47 min.	48 min.	51 min.
Class periods per week	2	2.5	2.1	2.3

Facilities and Equipment for Physical Education

The facilities, equipment and available space affect the type of program and the activities included in the curriculum perhaps to a greater

[1]Voltmer, E. F., and Esslinger, A. A., The Organization and Administration of Physical Education, New York, Appleton-Century-Crofts, Inc., 1938, p. 99.

[2]Montana State Course of Study, op. cit., p. 13.

extent than any other factors with the possible exception of the teacher who is in charge of the program. Irwin pointed to the need for sufficient space and equipment for physical education in the statement:

> Without adequate space it is practically impossible for a school to maintain a desirable program of physical education. The same is true in the case of equipment. In the modern type of program there must be a reasonable amount of equipment; otherwise activities cannot be maintained.[3]

The problem of adequate facilities for physical education seemingly would be one of the major problems for many of the very small high schools in Montana. Student responses indicated that this is an area in which the physical education programs of Montana high schools could be improved.

Adequacy of instruction in physical education. The success of the curriculum in physical education is almost wholly dependent upon the teacher connected with the program. Untrained or poorly trained teachers cannot administer and conduct an efficient and successful program of physical education.

Pupil evaluation of the experiences they had in their high school physical education programs revealed that the instruction they received was not of the highest quality. Again, the smaller schools have been rated lower than the larger schools. However, it should be kept in mind that Table 2 also shows that the schools in which instruction is not rated too highly are also rated low with respect to equipment and facilities available for physical education classes. The caliber of instruction, however, apparently needs to be improved at all levels.

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[3]Irwin, Leslie W., The Curriculum in Health and Physical Education, St. Louis, C. V. Mosby Company, 1944, p. 57.

TABLE 2. PUPIL EVALUATION OF PHYSICAL EDUCATION INSTRUCTION AND FACILITIES IN MONTANA SENIOR HIGH SCHOOLS.

Enrollment	Pupil evaluation, in per cent, of instruction received in physical education			Pupil evaluation, in per cent, of physical education facilities		
	Good	Fair	Poor	Good	Fair	Poor
Above 400 pupils	66.6	22.2	11.1	72.2	27.7	00.0
150 to 400 pupils	56.5	28.2	15.2	56.5	41.3	2.1
100 to 150 pupils	52.6	36.8	10.5	42.1	52.6	5.2
Fewer than 100 pupils	20.6	62.0	17.2	37.9	44.8	17.2

Rating of Activities Offered

The interests of the pupils to whom the questionnaire was administered are predominantly in the direction of dual and team activities. The Committee on Curriculum Research[4] formulated a list of physical education activities which the committee felt contributed most to students of physical education. The activities being offered in Montana high schools and rated by Northern Montana College freshmen are closely correlated to those of the Committee.

Activities offered in Montana high school programs, but not rated as favorably as those shown in Table 3 are: wrestling, soccer, free exercise, handball, modified games, water polo, squash and horseshoes.

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[4]Voltmer and Esslinger, op. cit., p. 119, (citing "Report of the Committee on Curriculum Research," pp. 144-161, by W. LaPorte, Research Quarterly, March 1933.)

The remaining activities are: marching, heavy apparatus, boxing, touch football, gymnastic dancing, and clog and tap dancing.

TABLE 3. COMPARATIVE RATINGS OF PHYSICAL EDUCATION ACTIVITIES BY THE COMMITTEE ON CURRICULUM RESEARCH AND BY 130 NORTHERN MONTANA COLLEGE FRESHMAN BOYS AND GIRLS.

Activity and Rating given by the Committee on Curriculum Research*	Rating*	Activity and Rating given by Northern Montana College Freshmen*	Rating
Activity		Activity	
1. Swimming and diving	8.3	1. Tennis	8.4
2. Tennis	7.3	2. Swimming and diving	8.0
3. Football	7.3	3. Life saving	7.6
4. Basketball	7.3	4. Speedball	7.5
5. Squash and squash tennis	7.2	5. Football	7.2
6. Soccer	6.8	6. Archery	6.9
7. Baseball	6.8	7. Basketball	6.7
8. Life saving	6.8	8. Golf	6.6
9. Speedball	6.7	9. Track and field	6.5
10. Playground ball	6.7	10. Baseball	6.5
11. Golf	6.7	11. Folk and square dancing	6.2
12. Boxing	6.7	12. Tumbling and pyramids	6.1
13. Handball	6.7	13. Playground ball	6.0
14. Water Polo	6.5	14. Volleyball	5.9
15. Volleyball	6.5	15. Games and relays	5.7

*LaPorte, W., "Report of the Committee on Curriculum Research," (Research Quarterly, March 1933)

*Rating given to high school physical education activities by college freshmen.

*Rating--scoring range: 10-0.

Personal Interviews

Personal interviews held with a sampling sample of Northern Montana College freshman boys and girls tended to verify the ratings given the activities listed on the questionnaire. The attitude of students from the smaller high schools was that equipment and facilities, particularly locker room

and shower areas, were inadequate and that the teaching of physical education lacked enthusiasm and imagination. Lack of time for participation was a criticism registered by the majority of the individuals interviewed. General satisfaction was expressed in regard to the content of the physical education programs.

The final chapter will summarize the material of the preceding chapters and conclusions will be drawn with reference to the original problem posed; namely, are the general needs of all pupils being met in the physical education programs of Montana high schools? Are the general requirements and suggestions of the Montana State Course of Study[5] being met? And, finally, to what extent are the physical educations programs of Montana high schools meeting the criteria recommended by the Council on Youth Fitness?[6]

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[5]Montana State Course of Study, op. cit., p. 13.

[6]Council on Youth Fitness, op. cit. pp. 4-5.

CHAPTER V

SUMMARY AND CONCLUSIONS

Summary

The purpose of this investigation was to ascertain the effectiveness of the physical education programs being offered in Montana high schools. Their effectiveness was to be judged by the degree to which they are meeting the criteria set up by state[1] and national organizations,[2] and the degree to which the physical education programs are meeting the general needs of the pupils.

A review of the literature related to physical education disclosed the close relationship between physical education and general education goals. Physical education provides an opportunity for actual practice in the development of such traits as cooperation, sportsmanship, sociability and leadership which are characteristic of the good citizen.

The school day is made more healthful for pupils by their participation in the activities offered in the physical education program which calls for vigorous physical exercise. Learning the fundamental skills and knowledge involved in the games or activities offered is of value to the individual in that he gains stature in the eyes of his classmates as well as personal satisfaction. Accomplishment in these skills enable many to take advantage of opportunities for future vocational employment. For many of them the skills and knowledge learned in physical education classes can be of great value for recreation or leisure time activities during adult life.

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[1]Montana State Course of Study, op. Cit., p. 12.

[2]Council on Youth Fitness, op. cit., pp. 4-5.

Because the physical education activities are so important to the physical education program, they must be selected with considerable care. Activities must be selected which can be used best in accordance with the needs and interests of those being served. Reports did not reveal any official curriculum content in physical education. There is, however, a list of standard physical education activities as shown on pages 20 and 21, which indicates the general current offerings in physical education programs in the United States.

The questionnaire results showed that the programs of physical education activities being offered in Montana high schools compare favorably with those recommended by authorities in the field of physical education. The close correlation of types of activities being offered by the Montana high school programs to those which the Committee on Curriculum Research[3] felt contributed most to pupils in physical education classes is evidenced by the similarities in the two lists (see Table 3). Top rating was given to tennis and swimming and diving, in that order, by Northern Montana College freshmen; the Committee rated swimming and diving and tennis, in that order, as their top selections.

Some of the questionnaire results clearly indicated that many of the Montana high school physical education programs do not have a sufficient amount of time devoted to them. The minimum amount of time that should be spent on physical education is 120 minutes a week.[4] Schools with an enrollment of 100-150 pupils, and schools with an enrollment of more than 400 pupils approach, but do not meet, the minimum time

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[3] Voltmer and Esslinger, op. cit., pp. 144-161.

[4] Montana State Course of Study, op. cit., p. 12.

recommendation because they offer approximately 117.5 and 117.3 minutes respectively.

To a greater degree the schools enrolling 150-400 pupils fail to meet the recommended time allotment by offering approximately 100.8 minutes a week to physical education and the schools below 100 pupils which allot about 90 minutes per week for the physical education program. Furthermore, there is a need for improvement of instruction at all levels and better facilities for physical education.

The questionnaire results indicate that better facilities are found in the schools having an enrollment of 400 pupils or more, as judged by pupil evaluation guaged by percentage as shown in Table 2 which shows the evaluation of instruction and facilities respectively, to be: schools with an enrollment of more than 400 pupils, 66.6% and 72.2%, schools with an enrollment of 150-400 pupils, 56.5% and 56.5%, schools with an enrollment of 100 pupils, 52.6% and 42.1%, and schools with fewer than 100 pupils, 20.6% and 37.9%

The following conclusions are based on the findings revealed in literature and by the results of the questionnaire administered to 130 Northern Montana College freshmen.

Conclusions

Montana high school physical education programs, as they are presently constituted, are, with one exception, meeting the criteria recommended by the President's Council on Youth Fitness.[5] This exception involves pupil participation in the planning and conduct of the physical education classes. Although this discrepancy does exist it is the

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[5]Council on Youth Fitness, op. cit., pp. 4-5.

conclusion of the writer that the physical education programs of Montana high schools are, for the most part, meeting the recommendations of the Council on Youth Fitness.[6]

The recommended time of 120 minutes per week to be devoted to physical education is not, in many cases, being met.[7] A second conclusion is that if the physical education programs are to make their maximum contribution to the education of youth a greater amount of time must be devoted to this phase of education.

A third conclusion, based on the number of activities rated and the favorable ratings given the various activities by the pupils, is that a well-rounded program of activities is being offered in the Montana high school physical education programs and that the pupils' needs and interests are, for the most part, being met.

In general, in the opinion of the writer, the pupil evaluation of the physical education programs being offered in Montana high schools indicates that the greatest weaknesses of the programs are in the most important areas, namely, allotment of time for classes, facilities for physical education, and the level of instruction. Until the standards in these areas are raised, it cannot, in truth, be said that the physical education programs of Montana high schools are making their greatest contributions to the students or the educational program in general.

A final conclusion is that there is a need for a modern, up-to-date course of study in physical education in the State of Montana. A detailed

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[6] Ibid.

[7] Montana State Course of Study, op. cit., p. 13.

course of study which would include: (1) general and specific objectives to be attained at different school levels, (2) the various activities to be taught and the order in which they should appear, together with the amount of time to be devoted to each, (3) suggestions on appropriate teaching and motivating techniques for the various activities, (4) provisions for adjusted programs for those requiring restricted corrective activities, and (5) adequate reference materials and teaching aids.

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APPENDIX

Appendix A

Below are listed a number of activities practiced in pnysical education, along with some of the desired outcomes or values. Please check the activities in which you participated while in high school according to what degree the outcomes or values were achieved. Use a 10-0 scale for rating, i.e., if you feel that your life saving course contributed a great deal to your physical development and organic health, rate it 8, 9, or 10, and so on for the other objectives sought.

EVALUATION CHART*

	Physical (Organic) (Health)	Social and Moral (Citizenship)	Psychological (Intellectual)	Safety Skills (Self and others)	Recreational Skills (Leisure Time)	All Round Contribution	
I. Aquatics							
1. Life saving							
2. Swimming and diving							
II. Combative							
3. Boxing							
4. Fencing							
5. Wrestling							
III. Gymnastic							
6. Free exercises (calistenics)							
7. Gym games and relays							
8. Heavy apparatus							
9. Marching							
10. Tumbling & pyramids							
IV. Individual sports							
11. Archery							
12. Golf							
13. Handball							
14. Horseshoes (Quoits)							
15. Squash and squash tennis							
16. Tennis							
17. Track & field							

*LaPorte, W. R., Report of the Committee on Curriculum Research, Research Quarterly, Vol. 1, No. 2, May 1930, p. 19.

Evaluation Chart (Continued)

V. Rhythmics 18. Gymnastic Dancing						
19. Clog and Tap Dancing						
20. Folk Dancing						
VI. Team Games 21. Modified Games (Kick ball, etc.						
22. Baseball						
23. Basketball						
24. Football						
25. Playground ball						
26. Soccer						
27. Speedball						
28. Touch football						
29. Volley ball						
30. Water polo						
VII. Additional Activities 31.						
32.						
33.						
34.						
35.						

SCHOOL ENROLLMENT _____

LENGTH OF CLASS PERIOD _____ MINUTES

NUMBER OF CLASS PERIODS PER WEEK _____

FACILITIES AND EQUIPMENT (1) good (2) fair (3) poor

CALIBER OF INSTRUCTION (1) good (2) fair (3) poor