A STUDY OF THE PHYSICAL FITNESS PROGRAMS
USED IN THE ELEMENTARY SCHOOLS
OF MONTANA

BY

ROBERT R. KAUFMANN

Submitted in partial fulfillment of the requirements
for the Master of Education degree
Montana State University
August, 1966
ACKNOWLEDGMENT

In order for the writer to make a study of this kind, it was necessary for him to seek the advice and guidance of those people who have, through the years, gained vast experience in the field of physical education.

The writer is particularly grateful to the following individuals who have donated their time and talent in helping to complete this study:

Mr. Jim Dutcher, Physical Education Director, Billings Public Schools, for establishing the form used in the survey instrument.

Dr. Harold Alterowitz, Department of Physical Education, Eastern Montana College of Education, for his guidance during the formation of the study.

Without their help, the successful completion of this study could not have been made.

The writer also wishes to thank Dr. John Picton and Dr. Willis Vandiver for their time, guidance, and assistance in compiling this paper.

This study in physical fitness activities is dedicated to the school children of Montana, in the hope that it will help to bring a more sound and vigorous fitness program to our schools.

RRK
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Chapter</th>
<th></th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>I.</td>
<td>INTRODUCTION</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Statement of Problem</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Procedure</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Limitations</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Importance of the Study</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Definitions</td>
<td>7</td>
</tr>
<tr>
<td>II.</td>
<td>REVIEW OF LITERATURE</td>
<td>8</td>
</tr>
<tr>
<td>III.</td>
<td>AN ANALYSIS OF THE PHYSICAL FITNESS SURVEY INFORMATION</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>Types of Physical Fitness Programs Being Used in Montana</td>
<td>14</td>
</tr>
<tr>
<td></td>
<td>Types of Indoor Facilities Available for the Physical Fitness</td>
<td>18</td>
</tr>
<tr>
<td></td>
<td>Identifying the Physically Underdeveloped Child</td>
<td>19</td>
</tr>
<tr>
<td></td>
<td>Evaluating the Performance of the Underdeveloped Child</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>Responsibility for Conducting the Physical Fitness Program</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>Recognizing Achievement and Progress</td>
<td>22</td>
</tr>
<tr>
<td></td>
<td>Planned Physical Education Activities in Montana Elementary</td>
<td>23</td>
</tr>
<tr>
<td>IV.</td>
<td>SUMMARY, CONCLUSIONS AND RECOMMENDATIONS</td>
<td>26</td>
</tr>
<tr>
<td></td>
<td>Summary</td>
<td>26</td>
</tr>
<tr>
<td></td>
<td>Conclusions</td>
<td>27</td>
</tr>
<tr>
<td></td>
<td>Recommendations</td>
<td>29</td>
</tr>
<tr>
<td></td>
<td>BIBLIOGRAPHY</td>
<td>31</td>
</tr>
<tr>
<td></td>
<td>APPENDIX</td>
<td>34</td>
</tr>
<tr>
<td></td>
<td>Appendix A: Survey Letter to Accompany Questionnaire</td>
<td>36</td>
</tr>
<tr>
<td></td>
<td>Appendix B: Survey Questionnaire</td>
<td>38</td>
</tr>
</tbody>
</table>
## LIST OF TABLES

<table>
<thead>
<tr>
<th>Table</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Method of Selecting Schools for Physical Fitness Survey</td>
<td>5</td>
</tr>
<tr>
<td>2.</td>
<td>Physical Education Activities Being Offered in Montana Elementary Schools</td>
<td>24</td>
</tr>
</tbody>
</table>
## LIST OF FIGURES

<table>
<thead>
<tr>
<th>Figure</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Elementary Schools in Montana that Participated in the Physical Fitness Study</td>
<td>13</td>
</tr>
</tbody>
</table>

vi
### LIST OF APPENDICES

<table>
<thead>
<tr>
<th>Appendix</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Survey Letter to Accompany Fitness Questionnaire</td>
<td>36</td>
</tr>
<tr>
<td>B</td>
<td>Survey Questionnaire for Physical Fitness Survey of Montana Elementary Schools</td>
<td>38</td>
</tr>
</tbody>
</table>
ABSTRACT

During World War II and the years that followed, concern has grown over the physical fitness of our youth. Experts in the field of physical fitness have worked to devise programs that will meet the growing physical needs of our school children. Educators, nationwide, have been concerned with these needs and how to meet them.

Statement of Problem

The purpose of this study was to determine the extent to which Montana elementary schools were participating in programs of physical fitness.

Procedures

The procedure of the study involved the use of a survey questionnaire sent to one hundred Montana elementary schools. The writer also reviewed current available literature on the subject of youth physical fitness.

Conclusions

Good progress has been made in establishing a sound physical fitness program in Montana elementary schools. There is definite interest in providing this type of educational program. Many areas, however, do not have the necessary information to establish an effective program.

Montana elementary schools are making good use of the school facilities and the trained personnel in the field of physical education.

Physical fitness is not an end in itself, but the beginning of an interest that will discipline the life of the individual for future development.
CHAPTER I
INTRODUCTION

The difficult years of World War II and the Korean War that followed, placed unusual physical hardships on its fighting men. The level of physical fitness attained by our youth, especially in the area of motor ability, did not seem to measure up to the minimum requirements set for selection by the various armed services. A high percentage of these young men were being rejected and reclassified.

At a time of such emergency, citizens and physical educators were questioning this lack of physical preparedness in our youth. What, in general terms, was being done in schools to develop the physical fitness of our youth? This concern can be seen reflected in a statement of World War II origin concerning rejection rates of our Selective Service Boards:

In the years ahead we shall hear a great deal about the failure of the nation's public school systems to produce citizens physically able to defend their country in time of war. The statistics adduced to prove this contention will be the large percentage of our citizenry found physically incompetent to serve in the armed forces during World War II. We shall be told that more than 35 per cent of all registrants in Selective Service were rejected in the draft. We have already heard, and shall hear again, a general indictment of our public schools because of these statistics.¹

What is meant by the term physical fitness? Cureton states that "physical fitness means the ability to handle the body well and the

capacity to work hard over a long period of time without diminished efficiency."  

President Eisenhower's concern for physical fitness was such that on September 6, 1957 he called a conference of qualified people in the field of physical education to discuss the fitness of American youth.  

The question was ... why had such a condition developed?  

There was no unified physical education program in the United States for youth of school age because the federal government had left the responsibility for education to the states. Furthermore, the apparent general lack of fitness in our youth seemed to indicate inadequate physical education programs at the state and local levels.  

Where should the training and motivation for sound, healthy children begin? A successful, continuing program might have its beginning in the elementary school. It has been the writer's experience to find a high degree of interest among elementary students for all types of vigorous activity.  

An elementary program geared to meet the following three basic needs might consider itself well on the way to increased success in fitness education: (1) Identify the physically underdeveloped children and work with them to improve their physical ability and capacity. (2) Use valid fitness tests to determine the pupil's physical ability and evaluate their progress. 

---


(3) Provide a minimum of fifteen minutes of vigorous activity every day for all pupils. 

Wilkinson states, "Since the only way to develop true physical fitness is through exercise, we feel our schools must take a hard, critical look at their physical education programs." Sound programs, qualified personnel, and satisfactory facilities are determinants for a successful program of physical education. "In most schools we find excellent physical fitness programs for people who don't need them, but virtually none for people who do."

The writer, through this study, desired to find the types of physical fitness activities that were being employed in Montana elementary schools. An evaluation of this information served to point a way of improvement; improvement that might better serve the needs of Montana school children.

Statement of the Problem

The purpose of this study was to determine the extent to which Montana elementary schools were participating in a program of physical fitness. Therefore, this study will answer the following questions:

1. What types of physical fitness programs were being used in Montana elementary schools?

---


6 Wilkinson, op. cit., p. 8.
2. What type of indoor facilities were available for the physical fitness program.

3. How were the physically underdeveloped identified within the school program?

4. How was performance evaluated in the underdeveloped student?

5. Who was responsible for conducting the fitness program?

6. Was achievement and progress recognized in any way?

The results of this investigation might prove helpful in establishing a more effective fitness program in Montana elementary schools.

Procedure

The first procedure was to review literature to determine the recent findings of research in the field of physical fitness. The second procedure was to compile a survey questionnaire to be sent to the elementary administrator of selected elementary schools throughout Montana. The survey instrument was compiled by the writer with Dr. Harold Alterowitz, Director of Physical Education, Eastern Montana College of Education, acting as consultant.

The survey instrument was checked by Mr. Jim Dutcher, Athletic Coordinator for the Billings Public Schools, and selected persons working with the physical education program of the Billings system.

Selection of the schools was made in the following manner:
TABLE 1. METHOD OF SELECTING SCHOOLS FOR FITNESS SURVEY

<table>
<thead>
<tr>
<th>City population</th>
<th>Number of cities selected</th>
<th>Number of schools surveyed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Over 5000</td>
<td>14</td>
<td>*28</td>
</tr>
<tr>
<td>2000 - 5000</td>
<td>20</td>
<td>20</td>
</tr>
<tr>
<td>1000 - 2000</td>
<td>21</td>
<td>21</td>
</tr>
<tr>
<td>Below 1000</td>
<td>31</td>
<td>31</td>
</tr>
</tbody>
</table>

Other criteria used in the procedures for this study are as follows:

1. Sampling was based on city population, with a scope of both large and small communities.

2. Sampling coverage was state wide.

3. Selection of the cities to be surveyed were made from the Montana State Highway Map. Approximately 90% of those cities with listed populations were sampled. Approximately 25% of all listed communities were sampled, including those of null population.

Limitations

The study was limited to the elementary schools of the state of Montana.

The review of literature was limited to reference material available in the Montana State University, Bozeman, Montana.

Since there were no more than fourteen cities in Montana with populations greater than 5000, two schools were surveyed from each of these cities.
Importance of the Study

In dealing with the problem of physical fitness, these questions might be asked. Have the desirable concepts of physical fitness been taught in our teacher training institutions? Has the importance of this program been stressed? Have our teachers become fully aware of the nature of the fitness program?

A progress report to the President of the United States commented on the matter as follows:

Today's school children are spending more time in physical fitness programs and are measurably stronger and better conditioned than school children of a few years ago.

Despite recent gains, approximately 20% of the public schools in grades 4 - 8 still have no physical fitness program at all.

National interest in the program of physical fitness can be seen in the late President John F. Kennedy's message to the schools on the physical fitness of youth. A portion of this message is as follows:

The need for increased attention to the physical fitness of our youth is clearly established. Although today's young people are fundamentally healthier than the youth of any previous generation, the majority have not developed strong, agile bodies. The softening process of our civilization continues to carry on its persistant erosion.

7 Victors, Evelyn, "Improving Elementary Physical Education," Improving College and University Teaching, Winter, 1964, pp. 54-56.

It is of great importance then, that we take immediate steps to insure that every American child be given the opportunity to make and keep himself physically fit — fit to learn, to understand, to grow in grace and stature, to fully live.

Fitness testing serves a definite purpose in the overall program. Not only does testing provide motivation and interest for the student, but it provides the teacher with data on the strengths and weaknesses of the student and indicates the track for improvement.

"The fact that there is need for evaluation, and that students are conditioned to expect objective evidence on the capacities accepted as goals, points to teaching opportunities inherent in the wise use of fitness tests."

Definition of Terms


A.A.U.: Amateur Athletic Union

---


CHAPTER II
REVIEW OF LITERATURE

The general function of physical education in the public schools is to assist in providing, for each pupil, a medium for normal growth and natural development. In this respect physical education has, in its aims and objectives, a close relationship to general education.\(^\dagger\) The strength of this relationship is revealed in this review of the literature dealing with the field of physical education and physical fitness.

In a recent publication Musial\(^2\), National Director of Physical Fitness Programs, states in regard to the school's responsibility for physical fitness: "The answer today is school physical education programs --- physical education programs which will, whenever possible, provide some vigorous exercise everyday for every boy and girl. And it's up to you ... the people actually working in physical education at the state, local and school level ... to see that our schools have such programs."

There is national, state and local concern in regard to the physical well being of our children. Often times, however, desire and concern are not enough. Organization, proper planning, and a common goal are prerequisites to achieving the results that are desired. To measure the results of any program, these results must be seen. Clarke makes this statement in regard to the value of proper measurement in physical

---


... to prepare an adequate physical education program, teachers must measure, for measurement is as indispensable to an adequate program as measurement is impossible without an adequate program.  

The Helena Public Schools of Helena, Montana have been active in the youth fitness movement for several years. Just recently this school system was selected to participate in the pilot program of the President's Council on Physical Fitness. The Helena system listed two primary purposes in their program:

1. to measure physical achievement.
2. to study and determine what relationship exists between academic standings, school attendance and general health.

These two purposes would indicate that the goals of a good program of physical evaluation are at least two fold.

What is meant by the term physical fitness? What can be expected from the person who has acquired the attributes of fitness? "The person with adequate physical fitness should be able to carry out his daily tasks without undue fatigue and should still have ample reserve of energy to enjoy leisure time and to meet unforeseen emergencies."  

---

It would appear that no common definition of fitness can be quoted. However, there seems to be a strong association of qualities linked with the term fitness. The following are three statements concerning fitness that will help to show the closeness of thought among persons interested in physical development.

What is physical fitness? Certainly it is more than the competency to pass any particular kind of test or appraisal. Though influenced by many factors, basically it is founded on good health, by which we mean physical soundness and ability to resist disease.

Physical fitness is the further development of capacity to work, to play and meet emergencies as they arise. This might be termed 'dynamic fitness,' dependent upon the individual's strength and endurance and the efficiency of his circulatory and respiratory systems.\(^6\)

Physical fitness can improve three fundamental fitness components: muscular strength, muscular endurance and circulatory endurance.\(^7\)

Fitness sustains skill learning. A person who tires easily will not learn as rapidly or as effectively as a physically fit person.\(^8\)

Many are the voices that proclaim the need for a dynamic fitness program in our schools. There are many facets of growth connected with physical fitness. Undoubtedly there are many aims for providing an opportunity for our students to become physically fit. However, "the primary aim of a fitness program is to provide opportunity and motivation for

\(^6\)Shaffer, Thomas E., "What is Physical Fitness?", *Childhood Education*, October, 1964, p. 64.


\(^8\)Ibid., p. 18.
every person, young and old, to achieve his full potential of health, vigor, endurance, and strength."9

To help children grow in their civic, social and moral responsibilities is of equal concern to their physical growth. Dr. Philip Barba's summary on physical fitness might serve as a broad view of our aims and objectives in public education in meeting the physical needs of children. He comments as follows:

If I ask you what you want for your children in the way of fitness, I am sure that you will ask for more than physical strength or agility. I want much more for my children and grandchildren and for their children and grandchildren. I hope they will have an emotional balance which lets them feel sorry for others but not for themselves. I pray that they will have keen minds with intelligence not blunted by malnutrition, illness, injury or by improper teaching. I want them to have properly functioning enzymes and hormones and I hope they will live in an environment where they cannot only enjoy these gifts but can use them in service for others. As a final quality of fitness may they have the spiritual strength to meet adversity, if it comes, and not to be crushed by it. This is my concept of fitness.

Public education must, then strive to meet the demands of our changing society by helping each child to attain as high a degree of physical fitness as possible. Muscular strength, stamina and endurance, agility and muscle tone, social and moral responsibility are all components necessary for meeting these goals.

---

9Shaffer, Op. Cit., p. 64.
10Ibid., p. 64.
CHAPTER III
AN ANALYSIS OF THE PHYSICAL FITNESS SURVEY INFORMATION

This study of the physical fitness activities in our Montana elementary schools was undertaken with the hope that this information might be of some help in improving the present programs of physical fitness. One hundred Montana elementary schools were selected according to city population. The geographical distribution of these schools can be seen on Figure 1. Note that the distribution includes a wide variety of topographical areas as well as a variety of economic areas.

Schools were selected according to city population, with two schools in communities larger than 5,000 being surveyed. One desire of this survey was to study the programs of our smaller communities as well as the larger communities. Since the recommended fitness programs did not require extensive equipment, it was found that the programs are as easily adaptable to the smaller school as to the larger.

A questionnaire concerned with the various aspects of physical fitness programs in Montana elementary schools was sent to the administrator of each school. The questions were of a general nature which would not require information that might reflect on the administrative abilities or practices of the administrator. No attempt was made to compare the quality of one school's program with the program of another school.

The only exception to this would be the reference to the Helena Public School and their participation in the President's pilot program in physical fitness.
Figure 1. Elementary schools in Montana that participated in the physical fitness study.
Types of Physical Fitness Programs
Being Used in Montana Elementary Schools

Forty-nine of those schools reporting indicated that they were using a planned physical fitness program. The two most commonly used programs reported in the survey were the A.A.H.P.E.R. Fitness Test Battery and the program developed by the A.A.U. Twenty-three of the reporting schools were using the A.A.H.P.E.R. program.

The A.A.H.P.E.R. program was launched in 1957 in an attempt to provide a program of physical fitness tests that would meet the needs of students from grade 5 through high school. 8,500 boys and girls in grades 5 through 12 were tested to see what American youth can do in a selected physical performance test.¹

The A.A.H.P.E.R. Youth Fitness Test Battery consists of seven items which are given in the gymnasium or outdoors area which test the physical proficiency of the student. Tests are administered twice each year ... Fall and Spring. The test also provides for aquatic testing. The tests of the A.A.H.P.E.R. program are as follows:²

1. **Pull-ups**: A test of arm and shoulder strength.

2. **Modified pull-ups for girls**: A modified pull-up designed for girls in which the heels act as a pivot for the upper body.

3. **Sit-ups**: A test of abdominal strength and endurance.

4. **Shuttle Run**: A 30 yard shuttle run testing speed and agility.

5. **Standing Broad Jump**: A test of leg strength and explosive leg power.


²Ibid., pp. 4 - 13.
6. **50 Yard Dash**: A test of speed over a short distance.

7. **Softball Throw**: A test of arm strength and the ability to throw for distance.

8. **600 Yard Run/Walk**: A test of running power and endurance.

The aquatic tests are as follows:

1. **Swim 15 feet using stroke or strokes of own choice.**

2. **Subject jumps into water over his head. He is then required to swim 15 yards; turn around, swim back half the distance; turn on back and rest for one-half minute; turn on front and swim to starting point.**

3. **Swim 100 yards against time.**

The writer noted that none of the reporting schools have been able to incorporate the aquatic tests into their program. One school indicated that the aquatic tests were being administered as a part of the system's summer recreation program.

The A.A.H.P.E.R. test battery can be administered with the facilities provided in most schools. Since the programs require a minimum of equipment, most of the test events can be administered in the classroom or on the playground areas.

The A.A.U. Physical Fitness and Proficiency Tests were announced in the summer of 1943 and developed from requests for tests that might be given to boys and girls under fifteen years of age. Eleven of the Montana elementary schools responded to the survey that they were now incorporating this program into their building fitness activities.

It is interesting and enlightening to review the literature of the A.A.U. in light of the interest that has been generated on a national level.
in the field of physical fitness. Some viewpoints of the A.A.U. program of fitness testing are as follows:

Physical fitness tests will not in themselves make a boy or girl physically fit, but they will provide the incentive and the challenge to them to improve their physical condition once they have the courage to match themselves against the standards and are brought face to face with their shortcomings. Furthermore, the opportunity to measure their physical capacities by competing only against standards will offer much less resistance than having actually to compete against superior performers. The United States Army basic field manual on physical training says:

"The only way a comparison can be made between a standard to be reached and the ability of an individual or group is by tests. Tests have a very important place in any physical training program."

The A.A.U. Physical Fitness Test is a hexathlon (six events) made up of five required and one optional event in which the candidate competes against a standard for his own age group. Competition is open to both boys and girls. Age groupings run from 6 years to 18 years.

The tests of the A.A.U. program are as follows:

Required Events

1. **Sprints:** Sprint distance varies according to age

2. **Walk and Run:**

3. **Sit-ups:**

4. **Pull-ups:** Modified style for boys in the 6 to 9 year old bracket and for all girls

5. **Standing Broad Jump:**

Optional Events

1. **Push-ups**

---

Optional Events (continued)

2. **Baseball Throw for Distance**

3. **Continuous Hike for Distance**

4. **Running High Jump**

Like the A.A.H.P.E.R. tests, the A.A.U. tests can be administered with a minimum of equipment and space.

Sixteen of the twenty-three schools using the A.A.H.P.E.R. program were in cities of 5,000 or more population. The use of the A.A.U. program seemed to be fairly evenly divided among the communities, regardless of population.

A total of sixteen schools indicated that they were using programs other than the A.A.H.P.E.R. and A.A.U. previously mentioned. Eight of these schools indicated the development of their own programs. Several administrators mentioned that they had written their own plan for physical fitness activities because they were not aware of, or had not received, materials that they could incorporate into their existing programs.

Thirty-one of the schools surveyed reported that they had no organized programs whatsoever. The term *organized* would mean a program that followed systematic guidelines of physical fitness activity. Many schools mentioned that they had an active physical education program consisting of playground games and indoor activities, but were not at that time engaged in a program that stressed physical development.

---

Some reference was made to the President's Council on Physical Fitness which seemed to indicate that there was growing interest in developing a sound program, and that this information, when available, was being read.

Types of Indoor Facilities Available For the Physical Fitness Program

Generally speaking, an adequate elementary physical fitness program can be carried on with a minimum of equipment and space. As mentioned previously in this writing, and as can be noted from the A.A.H.P.E.R. and A.A.U. tests, all of the tests, if necessary, can be administered on an outdoor playground area. However, Montana weather being what it is, it is desirable to have an indoor area that can be used during the severe winter months. Also, since motivation is a prime factor in the success of a fitness program, it is certainly desirable that space be available at all times of the year, lest the good works of the beginning program be lost in the inability to continue the program during the winter.

Since the building planning of most modern elementary schools includes a multi-purpose room of some kind, it was not surprising to see that fifty-six of the reporting schools did have such facilities as gymnasiums or multi-purpose rooms for their physical fitness program. Most fitness tests and related activities can be conducted in a rather confined space. Four schools in rural area communities reported not having any multi-purpose room whatsoever, but were doing an adequate job of testing and development by using a classroom. Such events as dashes, softball throw for distance, or distance runs used in the intermediate grades do require an outdoor area. Fitness activities designed for the primary
grades generally do not require special equipment beyond that which is usually a part of school inventory. Such equipment as rubber balls, bean bags, jump ropes, etc. are usually sufficient for a basic program.

None of the reporting schools indicated that they were experiencing any difficulty because of lack of adequate space.

Identifying the Physically Underdeveloped Child

Children entering the elementary school for the first time are usually given a complete physical examination by a physician. For the remainder of the elementary years, it is generally the responsibility of the classroom teacher, through daily observation, to judge the physical capacity of each child. This is a most difficult task and one that could be aided greatly by the use of reliable testing devices.

The results gathered from the questionnaire in regard to the question of identifying the underdeveloped child were rather vague. Comments by reporting schools indicated that testing, teacher observation, physician's statement, or school nurse observations were used as screening. However, no mention was made of what kind of follow-up activities were used. The fact that sixteen of the reporting schools indicated that they did not have an adequate system of screening the underdeveloped child, but were engaged in some program of fitness testing, might indicate that the person responding to the questionnaire did not fully understand the question.

The responses to this question seemed to show a rather loose correlation with other questionnaire items. The schools that pointed to little effort in screening the underdeveloped child, also pointed to an active testing program.
Evaluating the Performance of the Underdeveloped Child

The responses to the question on evaluating the performance of the underdeveloped child were much the same as the question on identifying the physically underdeveloped child. The responses were brief and somewhat vague as to the kind of evaluation being used. There were few written responses that might help to shed some light on the individual programs. One could surmise from the responses, however, that the performance evaluation being made was being made by some testing device. Three schools listed the A.A.H.P.E.R. testing programs. However, twenty-eight schools listed testing without reference to the type of test or how it originated. These tests could be the A.A.H.P.E.R., the A.A.U. or any number of testing programs designed by the particular school system.

Forty-nine of the reporting schools were actively engaged in some kind of fitness testing program. Eighteen schools indicated that they had no organized means of evaluating performance.

Responsibility for Conducting the Physical Fitness Program

In order for an educational program of any kind to be truly successful, it must first be organized under competent leadership. This is certainly true in conducting a program of physical fitness. Adopting a satisfactory program is only one step in establishing a program that might hope to be lasting and successful. The interest and enthusiasm displayed by persons chosen to supervise the program can count greatly in its success.

With the growing need and interest in physical education and physical fitness activities, Montana school systems have been employing persons who
have had intensive training in the physical education field. Along with the advantage of having a trained instructor comes the dedication and sincere interest that is so needed. The trained person has the opportunity to provide skillful planning coupled with the professional background needed to implement a sound and lasting program.

From the viewpoint of one interested in seeing fitness training become a regular and vital part of all elementary schools, it was heartening to note that thirty of the reporting schools employed full time and professionally trained physical education personnel. These professionals generally conduct the physical education programs for all the elementary schools in a school system. Not only do these people conduct the physical education program, but are on hand to assist the classroom teacher in any plan he or she might have in teaching a physical education activity.

It would be misleading to assume that the only successful fitness program can be supervised by a professionally trained person. True, these people add a great deal to the program, but the classroom teacher also plays a vital part in the program where trained personnel are not available. The survey shows that twenty-one of the reporting schools have classroom teachers conducting the programs. The writer has found that in many of the larger school systems the assistance of the classroom teacher has become a welcome addition to the work being carried on by the physical education instructor. The building principal will often give assistance with testing and other activities. In many of the smaller schools, the survey indicated that the building principal was the sole supervisor of the fitness program.
A review of the survey questionnaires indicated that schools that did not delegate fitness program responsibilities to any one person, seemed to have divided this responsibility among the various staff members and physical education personnel.

Recognizing Achievement and Progress

It would seem that in all walks of life, achievement is recognized in some concrete and meaningful way. Bowling trophies, county fair ribbons ... all represent recognition for a job well done.

The use of some award of recognition in the elementary school can become one of the strongest motivating incentives for any program. Children look forward to the time when they can receive some token that represents some unusual effort on their part.

Since awarding certificates or ribbons for achievement is not a difficult or expensive thing, it is certainly within the scope of any elementary school. Any school, large or small, can create an attractive and worthwhile certificate using the duplicating materials found in most schools.

The A.A.H.P.E.R. and the A.A.U. programs provide the certificates for all students who participate in the testing program. The A.A.H.P.E.R. also provides a cloth patch in recognition of superior achievement. These awards can be purchased at a nominal fee.

Twenty-three Montana elementary schools reported that they were awarding some kind of certificate or ribbon for achievement or progress in physical education. The awards can be given for intramural events, individual and team events as well as for the physical fitness testing. Several schools reported that they were giving awards, but did not indicate
the type or for what activity. Judging from the response to this question on recognizing achievement, many schools have found the awarding of some suitable form of recognition, whether made in the school or commercially made, a desirable and rewarding practice.

Planned Physical Education Activities
in Montana Elementary Schools

As previously mentioned, no program can hope to succeed if students are not properly motivated toward certain goals and if they do not understand the activity and what purpose it has in their lives. To be physically fit does not necessitate an interest in or participation in sports. However, the child that is physically fit; the child that is vigorous and active will, without a doubt, feel the need for an outlet for energy.

The modern elementary school with its multi-purpose rooms and spacious playgrounds stands in good position to provide a program of recreational activities for its students. The questionnaire sought to find what types of activities were being offered as a regular part of the physical education program. Other activities were offered as an extracurricular program during the noon hour and after school.

Table 2 shows some of the physical education activities being offered and the number of schools that offered this recreation.
Table 2. Physical Education Activities Being Offered in Montana Elementary Schools

<table>
<thead>
<tr>
<th>Type of activity</th>
<th>Number of schools</th>
<th>Type of activity</th>
<th>Number of schools</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basketball</td>
<td>42</td>
<td>Volleyball</td>
<td>7</td>
</tr>
<tr>
<td>Track and Field</td>
<td>35</td>
<td>Free Throw</td>
<td></td>
</tr>
<tr>
<td>Softball</td>
<td>4</td>
<td>Contests</td>
<td>2</td>
</tr>
<tr>
<td>Touch Football</td>
<td>7</td>
<td>Wrestling</td>
<td>1</td>
</tr>
</tbody>
</table>

That Montana educators are interested in developing a sound program of physical fitness activities can be seen in the number of requests for information received in the return of questionnaires. Requests for further information on how to establish a new program or to develop a better program came from forty-eight schools. Twelve schools indicated that they needed no further information at this time.

It is interesting to note the number of comments concerning the physical fitness programs in the various schools. Many of these comments come as appeals for help in establishing better programs. Many are concerned with the testing program itself. Still others suggest ways of improving the program so that it might become a more effective part of our educational pattern.

Following are comments by educators concerning the program as it now operates in Montana schools.

1. Montana elementary schools need full time instructors in physical education. They should work 5 days a week.

2. Our boys and girls need arm and shoulder strength and development. This training should start in grade 1.
3. Let's get the PTA interested in this project.

4. The elementary physical fitness program should not "ape" the high school program.

5. Our school needs a teaching and working guide.

6. This is an important program, but it needs qualified teachers.

7. Each school seems to be operating on its own. We seem to be going in all directions.

8. We should have more information at our education meetings.

9. I would like to have a planned program.

10. I know little about any program.

11. There seems to be little help for the weaker students.

12. We need to build strong boys and girls in our society. No softies!

Fitness for what? In answer to this question which is so often asked by those who find it difficult to accept the importance of physical fitness efforts for our youth, Steinhaus makes this following statement:

The goals of persistent and strenuous exercise were shown to indicate the improvement of organic vigor, the performance, the physique, and the participation of the individual as an effective member of his home and his wider social group. Some changes, perhaps the most important, cannot be measured today. Important changes require hard training.5

Montana elementary schools stand in good position to provide an environment in which these important changes can take place.

CHAPTER IV
SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

This study has been concerned with the types of physical fitness programs now being used in the elementary schools of Montana. The study has tried to show what types of programs are being offered and the types of activities connected with these programs in the hope that, through this study, the quality of this instruction might be improved.

Summary

A review of the literature available on the topic of youth physical fitness revealed that there is nation wide interest in improving the quality of existing programs. Much has been done to improve the physical capacity of our youth; much still needs to be done. The writer, after reviewing much of the recent literature, conducted a survey of one-hundred Montana elementary schools seeking information concerning the present programs of physical fitness being offered.

The return of questionnaires indicated that seventy percent of the reporting schools were using some type of planned physical fitness testing program. The testing batteries provided by the A.A.H.P.E.R. and the A.A.U. were the ones most commonly used. The survey also pointed out that our Montana elementary schools were providing a wholesome program of fitness related activities in addition to the testing program. Sixteen schools were using programs other than the A.A.H.P.E.R. and the A.A.U. Reference was made in many cases to programs designed by the local school system. Thirty-one schools were not participating in fitness programs of any type. Aquatics activities, an important part of the A.A.H.P.E.R.
battery, were not being used in any of the elementary schools. One system did include aquatic training in their summer recreational program.

A good portion of the reporting schools were equipped with gymnasiums or multi-purpose rooms. Fifty-six schools had these facilities and were using them for a variety of physical education activities.

Information seemed lacking in the areas of identifying and evaluating the physically underdeveloped child. The poor survey returns in this area could have been due to a misinterpretation of the questionnaire item.

Physical education leadership, both by the professionally trained and by the classroom teacher, was good. Thirty schools reported professional leadership. Classroom teachers were also cited for their assistance in conducting the various activities.

There is encouraging interest in fitness education in the elementary schools of Montana. Many schools not presently engaged in a program indicated a desire to learn more about this project and to find a place for its use in their own school curriculum.

Conclusions

The review of current literature in the field of physical fitness leads to the conclusion that physical fitness testing is not an end in itself. However, the testing program, together with other related activities and with the interest displayed by those persons conducting the program, represents the beginning of the motivating force that will help children understand the need for vigorous physical activity in their lives and to begin the personal discipline necessary for future development.
The following conclusions were made on the basis of the survey of Montana elementary schools. Montana elementary schools have made good progress in establishing sound programs of physical fitness. Though organizational information has not yet reached all schools, the percentage of schools actively involved in fitness activity is indicative of the growing interest.

Comments and requests for further information by schools not yet engaged in a program of physical fitness led to the conclusion that there is sincere desire to establish such a program.

There is no conclusive evidence that Montana elementary schools have any unified program for identifying and evaluating the underdeveloped child. The writer feels that if the questionnaire items on identification and evaluation had been worded differently, the responses would have been more valid.

Nearly all the reporting schools had adequate indoor facilities for conducting a program of physical fitness. There were few limiting factors in setting up a basic program. Though the schools who were not participating in any program did not give their reasons, it would appear that they were not limited by lack of facilities. It could be concluded that informational materials had not reached them or that they had not been interested in establishing a program at that time.

Montana elementary schools are making good use of those persons trained for the purpose of conducting physical education activities. The classroom teacher has also been aiding the program. Twenty-one schools reported that the physical fitness program was being conducted by a classroom teacher. This fact leads to the conclusion that the organization and operation of a fitness program is not an activity that necessarily requires
professional direction, but can be conducted by the classroom teacher with a minimum of physical education training.

The general conclusions that the writer can come to in reviewing the accumulated information is that the seed has been sown in Montana elementary schools for providing a sound physical fitness program for its students. Information is still lacking in many areas, but it is being made available to more and more schools each year.

Recommendations

It is recommended that greater state and local emphasis be made in the area of physical fitness. Information listed in the Montana State Guide for Physical Education should also be emphasized, along with current supplementary materials, and should be made available to all interested schools requesting this information. Efforts should be made to acquaint school systems with the possibilities of this program within their own educational structure.

The Federal Government has set aside funds for the development of this type of educational program in our schools. It is recommended that school systems not currently engaged in youth fitness programs be encouraged to investigate this possibility as an aid in setting up their own programs.

Teacher training institutions in Montana should strengthen fitness education in their physical education curriculum.

It is further recommended that Montana elementary schools give thoughtful consideration of adopting a plan for youth fitness. The inherent use of sound physical fitness practices in the elementary school will result in students vigorous in activity and healthy in mind and body.
In our society of vast technological changes, the continuing strength and vigor of our youth may yet spell the difference between success or failure in the years to come.
BIBLIOGRAPHY


Shaffer, Thomas E., "What is Physical Fitness?", Childhood Education, October, 1964.


APPENDIX A

Survey Letter to Accompany
Fitness Questionnaire
Dear Colleague:

I am in the process of studying the youth physical fitness curriculum of Montana elementary schools. The study is being conducted in an effort to find the strengths and weaknesses of present programs, with the hope of formulating a plan whereby all elementary schools might be able to adopt a satisfactory and effective program.

Attached is a questionnaire which I hope you will be able to find time to complete. All responses will be regarded as confidential, since the study is not intended to compare individual schools or their philosophy in physical education.

I would appreciate any comment you care to make regarding this study. Your assistance as an experienced educator would add greatly to the results of this investigation.

Sincerely,

Robert Kaufmann
APPENDIX B

Survey Questionnaire for Physical Fitness Survey of Montana Elementary Schools
PHYSICAL FITNESS QUESTIONNAIRE

The use of this survey questionnaire is an attempt to evaluate and share with the teachers of Montana the information concerning the important work of youth fitness. Your frank answers will make this possible.

Please feel free to make any additional comments concerning any item listed.

1. What is the average enrollment of your school?
   Above 250   100-250   Below 100

2. Are you now using any of the planned physical fitness programs available to public schools?
   Yes       No
   If yes, please indicate which one you are using from the list below.
   ___ A.A.H.P.E.R. Youth Fitness Battery
   ___ A.A.U. Physical Fitness Tests
   ___ Other Programs (Please indicate below)

3. Has any provision been made to administer aquatic tests to your students?
   Yes       No
   If yes, please indicate where tests are given and person administering the tests.
   Place
   Person

4. What type of indoor facilities do you have available for your physical education program?
   Multi-purpose room       Classroom       Hallway

5. By what means do you identify the physically underdeveloped child in your school?
6. How do you evaluate the performance of the underdeveloped child?

____________________________________________________________________________________

7. Who administers the physical fitness tests in your school?

____ Classroom teacher

____ Physical Education Supervisor

____ Civic Organizations (please name)

____________________________________________________________________________________

____ Other than above ____________________________

8. Does any one staff member have the responsibility of conducting the physical fitness program?

Yes____ No____ If yes, what individual has this responsibility?

____________________________________________________________________________________

9. Does your school participate in any planned competitive activities between grades during the year? (RE: basketball, field days, track meets, etc.)

Yes____ No____ If yes, in what type of activity does your school participate?

____________________________________________________________________________________

10. Do you recognize athletic achievement of students in any way? (sweater patches, ribbons, certificates)

Yes____ No____ If yes, what type of recognition do you use?

____________________________________________________________________________________

11. Would you desire information on how to organize an effective physical fitness program in your school?

Yes____ No____ Comments: ____________________________

____________________________________________________________________________________

12. I would appreciate any comments you might make in regard to physical fitness. If you have any suggestions that might help establish a better fitness program in Montana schools, your suggestions would be greatly appreciated. (If more space is needed, please use back of page)