PHYSICAL EDUCATION FOR THE MENTALLY AND PHYSICALLY HANDICAPPED THROUGH AN ADAPTIVE PROGRAM

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CHAPTER I

INTRODUCTION

In our schools today there is a vital need for a program in teaching sports adapted to the mentally and physically handicapped. This program must be one which will motivate the handicapped student to perform physical activities which will lead to his adjustment in an ever-changing society. A very effective means for shortening the bed patient's convalescent period is formal calisthenic exercises, but this fails to motivate the average student who is affected with a physical or mental handicap. A program of sports, on the other hand, adapted to the interest, capacity and needs of the student, conforms to the accepted principles of learning. In the program of adapted sports the total body needs of the individual are recognized.

Outlets for the healthful expression of basic drives, urges, desires, and emotions are provided by the school program of adapted sports. As sports call for natural responses that are easily evoked, the nervous energy expended is of a type which uses previously learned nervous-system patterns. This fact is important because of the necessity for reducing tension and nervous strain which characterize our present manner of living. The adapted sports program takes the individual as he is and teaches him these recreative skills which tend to make him better able to adjust to the life of which he is, and will be, an integral part.

The writers' interest in this problem is to point out the

need for an adaptive program in our Junior High and Senior High schools. As educators we are interested in the total development of each individual.

I. THE PROBLEM

Statement of the problem. It was the purpose of this study to establish a criterion for an adapted physical education program in junior and senior high schools.

Importance of the study. In the majority of cases there has been nothing done for the physically or mentally handicapped student in our school physical education programs. We need to know according to our individual school whether to have an integrated or separate class situation in caring for the physically and mentally handicapped. Education should be concerned not only with the education of the mind, but with the whole life of the student.

Limitations. This study will be limited to the Junior High and Senior High school boys' and girls' programs for the physically handicapped. The material in this area is limited; therefore, much of the information is found in text books, articles and some books devoted to the adaptive program.

II. DEFINITIONS OF TERMS USED

Adapted physical education. The adaption of a program of physical education to meet the needs of students who are unable to participate in the regular program of physical education.

Mentally handicapped. Having the lack of ability to concentrate and to retain. They also have difficulty in following directions, tend to lose interest in remote goals, greater response to the concrete and practical rather than to the abstract and theoretical, varying interest span, lack of team play, lack of initiative, and inability to experiment and innovate with activities.[1]

Physically handicapped. Having a physical defect of such seriousness as to interfere with or render more difficult normal progress in the regular school program.

Orthopedic. Pertaining to the prevention and correction of a deformity especially in children.

Physical examination. The term physical examination refers to that examination given by the physician, the pupil's family physician or a school physician.

Special education. In a public school system is the practice of offering to children of unusual needs--exceptional children--; some kind of opportunity for instruction specifically adapted to their learning capacities.

Exceptional children. Are those who while in nearly every way like other children, have some mental, physical, social or emotional characteristics so different from most children that it affects their learning.

Physical inspection. The term refers primarily to the

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[1]Stein, Julian U., "Adapted Physical Education for the Educable Mentally Handicapped", Journal of Health, Physical Education, and Recreation, XXXIII (December, 1962), p. 31.

type of observation done by the teacher or nurse to determine postural deviations and pupil's daily health status.

Mentally retardation. Severe (0-25 I.Q.), moderate (25-50 I.Q.), and mild (50-80 I.Q.). Of the total, about 80 percent are mild (educable), 15 percent are moderate (trainable), and 5 percent severe (totally dependent).[2]

III. CHARACTERISTICS OF THE HANDICAPPED

In determining activities for the class, attention is paid to the special characteristics of the students involved. Not all handicapped children exhibit all of these characteristics, and those who possess them do not do so in the same degree, but the following traits found in significantly greater numbers among the handicapped than among the nonhandicapped. In a class of retarded youth, just as in any regular physical education class, there will be individuals of varying physical, emotional, and social abilities and disabilities. Among the characteristics of the retarded with which the physical educator must be particularily concerned are: Physical - poor body mechanics, low vitality, poor motor coordination but with less deviation from the nonhandicapped than in social and educational efficiency, and poor functioning of the sense receptors and preceptors. Mental - lack of ability to concentrate and to retain, difficulty in following directions, tendency to lose interest in

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[2]Weber, Elmer, Educable and Trainable Mentally Retarded Children, (Springfield, Ill., Charles C. Thomas, 1962), p. 92.

remote goals, greater response to the concrete and practical than to the abstract and theoretical, varying interest span, lacking of understanding of team play, lack of initiative, and inability to experiment and innovate with activities.

Emotional - general lack of stability and adjustment; lack of stability when too much is expected; impatience; undesirable responses to poor competitive effort; aggressive behavior to cover a weakness, demonstrate worth, attract attention, or relieve tensions; low levels of self-confidence and self-direction; and unpredictable in reaction to evaluation.

Social - immaturity, eagerness for approval of the teacher, participation as an individual within a group, leadership ability in small groups of own peers, and clannishness. It should be noted that the rate of growth is slower and the peak of development is reached sooner by the handicapped than by the nonhandicapped.[3]

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[3]Stein, Julian U., "Adapted Physical Education for the Educable Mentally Handicapped", Journal of Health, Physical Education, and Recreation, December, 1962, pp. 30-31.

CHAPTER II

REVIEW OF THE LITERATURE

Almost seven and one-half million children (approximately one out of every nine)[1] who are in attendance in public schools today, have some sort of physical or mental handicap[2] and as such require special educational consideration. This places a great burden upon the schools and the teachers. If the basic idea of the schools is to be properly fulfilled, each handicapped child must receive the fullest opportunity for development and participation to the limit of his capacity in all phases of the program.

If physical education is to fulfill its role in education in sharing in the social, emotional and physical development of students, it is most important that some type of program be offered to those students who deviate from the so-called normal. The National Society of Crippled Children has estimated that between twenty-five to fifty percent of the handicapped children in schools could be helped by participation in physical activities.[3]

There is also evidence that with the proper type of stimulation and training a retarded individual may learn to do more

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[1]Coddington, M. F. and others, Physical Education for the Secondary School (Pierre, South Dakota; South Dakota State Course of Study, 1962), p. 24.

[2]Stein, op. cit., p. 30.

[3]Hughes, William L., and French, Esther, The Administration of Physical Education (New York: Ronald Press Co., 1922),p. 18.

complicated things than would be expected on the basis of his mental age. Recent trends in research show that the lack of intellectual ability resulting from arrested mental development need not affect the levels of physical fitness and motor development of the retarded. Based upon scientific evidence reported to date, certain guideposts can be given concerning the psychomotor function of the mentally retarded:

1. In spite of underachievement with respect to motor function, the mentally retarded are much nearer the norm physically than mentally.

2. Motor function and proficiency can be improved in the retarded as a result of planned and systematic programs of physical education.

3. There are real differences to be expected in working with institutionalized retardates vs. those enrolled in public school special classes.

4. The mentally retarded achieve better in activities characterized by simple rather than complex neuromuscular skills.

5. Achievement in the area of physical fitness development apparently does not result in corresponding differential gains with respect to sociometric status.

6. Significant IQ gains have been demonstrated by educable mentally retarded boys subjected to programs of planned and progressive physical education activities.

7. Motor proficiency and intelligence are more highly correlated in the retarded than in normal children.[4]

The historical aspects of corrective physical education have been covered by Drew, Lovitt, Flexner and others. Their

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[4]Stein, Julian U., "Physical Education and Recreation as Adjuncts to the Education of the Mentally Retarded," The Physical Educator, Vol. 24, No. 2, May, 1967, pp. 52-53.

studies have shown that the beginnings of medicine, specific physical therapy measures were advocated for the treatment of certain physical defects. Drew reports that:

> "Some sort of exercise for remedial purposes has been in use from earliest time. Primitive man seems to have recognized that certain bodily ailments were benefited by physical activity. Records and pictures have been found representing the use of medical gymnastics by the Chinese, at least three thousand years B.C..... The importance today is considered one of its desirable results this message through the ages: "The mind is stimulated by movements of the body."[5]

Of late, the trend in physical education is toward an activity program adapted to the ability of the handicapped pupil and to his educational needs. The educational needs of the atypical student are not by those activities which help him adjust emotionally, physically and socially to his environment. Physical defects are usually accompanied by emotional maladjustments; therefore, the main consideration should be the development of an integrated personality.

Terminology

The term "special" is used in referring to the classes in preference to remedial or corrective, although a part of the work was necessarily of a remedial or corrective nature. However, the primary purpose of the special classes is the improvement of the individual, and the classes are kept open to all pupils regardless of ability. Often superior performers need individual attention in social and emotional adjustment, if not

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[5]Drew, L. C., Individual Gymnastics (Philadelphia: Lea and Feiger Co., 1922), p. 18.

in instruction and practice in the fundamental skills of sports. Keeping the classes open to all pupils regardless of ability helps materially in avoiding the social stigma that often accompanies the assignment of pupils to corrective or remedial classes.[6]

Confusion in terms led in 1949 to a search for a suitable name conducted by a committee of the national association. Fifty names were suggested by physical educators and others interested in this phase of physical education. The four names receiving the largest number of votes were as follows: (1) adapted physical education, (2) corrective physical education, (3) individual physical education, and (4) physical reconditioning. No one term had an outstanding majority.[7] The term "adapted physical education" does not suffice, since all physical education should be adapted to the needs of the individual. The other terms are too narrow in their concept.

Motivating Value

It is known that proper exercises, faithfully performed, can produce improvements and corrections of many defects. As the rehabilitation experts in the veterans hospitals discovered, faster progress was made when the patients were given levers to pull, pedals to push and things to handle than when directed in the movements alone. It is known also that in museums and

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[6]Irwin, Leslie W., The Curriculum in Health and Physical Education (St. Louis: C. V. Mosby Co., 1944).

[7]Hughes and French, op. cit., p. 111.

elsewhere displays have a greater appeal where there are buttons to press and things to move by the spectators rather than by static displays, no matter how lavish and colorful.

This has been the experience also of the teachers in schools where devices for remedial physical activity are used. Where there are devices in the remedial room, the pupils seem drawn to them, and they exercise of their own volition. On the other hand, very few will do their exercises voluntarily or vigorously in the absence of such devices without direct instructions and frequent urging by the teacher.

It seems obvious, then, that motivating devices have a definite value in a remedial physical education program. It is hoped their pioneer efforts will stimulate further study and refinements until, ultimately, we shall have the scientific instruments needed to enrich this essential program.[8]

I. MODIFIED OR RESTRICTED PROGRAM

The modified program aims at providing right experiences in physical education for pupils who should not take part in strenuous exercise. The program tries to educate the pupil in what he can do, rather than emphasizing the things he cannot do because of the handicap. To do this, activities in the regular physical educational program are adapted to the physical limitations of the pupils. Less strenuous games are emphasized and

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[8]Braverman, William, "Motivating Devices for Remedial Physical Education", Journal of Health, Physical Education and Recreation, March, 1958, p. 18.

considerable time is spent on health guidance.

Pupils in the modified program can take part in most of the activities of the regular physical education program, providing these activities are carefully selected and regulated. Excellent direction for such modification is given in Stafford's Sports for the Handicapped.[9] The teacher should consult this reference or one similar to it before planning the instructional program.

Also quoted empirical statements from those working directly with retarded children in modified programs reinforce the restricted Physical Education Program.

1. "The teacher is probably most able to reach the retarded in two areas of learning, music and physical education which appear closely related and basic to recreation programs." (Dubin, 1954).

2. "Much improvement was noted in levels of physical fitness and in the development of both basic and specific motor skills. Several of these youngsters (trainable boys and girls) had virtually no verbal communication, but expressed themselves in symbolic and meaningful ways through the movement involved. This was especially evident when basic rhythms and fundamental movement activities with music were used.... Even these youngsters voluntarily participated in a special demonstration night for the P.T.S. All of these children were eager and responsive. However, the younger ones progressed more rapidly and were less reluctant to try some activities..." (Stein, 1966).

3. "Students have developed some skills and abilities to rather high degrees of proficiency; all of the boys have progressed tremendously in the direction of physical, emotional, psychological, and social self-sufficiency and self-realization. They have become better adjusted

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[9]Stafford, George T., Sports for the Handicapped. (New York: Prentice-Hall, Inc., Second Edition, 1950).

to the school population, and the school population to them." (Stein, 1962).

4. "Yesterday during a visit to Wakefield, I was amazed at the improvement in physical coordination exhibited by the older boys whom I have known for several years. This improvement is obviously the result of the program that you and your successors have followed at Wakefield." (Personal communication from Mr. Henry Gardner, Coordinator of Services for Exceptional Children, Arlington County, Virginia.)

5. "Through participation in a daily program of physical education activities, elementary school retarded boys and girls participated more actively in before and after school physical recreation programs, and attained levels of performance commensurate with their grade peers. This same program provided a stimulus for a variety of other educational experiences of a more academic nature, as well as being psychologically stimulating and emotionally invigorating." (Stein, 1960).[10]

In general, most athletic games can be modified as follows:

1. Cutting the size of the playing area.

2. Playing for shorter periods.

3. Adding players to a team.

4. Avoiding headlining any one player.

5. Reducing the number of points to win a game.

6. Substituting often.

7. Improvising games which use some of the same skills as the particular athletic game but eliminating long periods of strain.

   a. Play "21" for basketball.
   b. Throw for basket.
   c. Zig-zag relays for football punting or passing.

8. Spending time refining and practicing the game

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[10]Stein, Julian U., "Physical Education and Recreation as Adjuncts to the Education of the Mentally Retarded", The Physical Educator, Vol. 24, No. 2, May, 1967, p. 53.

skills.

a. Pitching at a target.
b. Throwing for distance.
c. Passing ball to left and right and shooting for goal in field hockey.[11]

Because the length of time any one pupil can spend on an activity is variable, the teacher should be alert to signs of fatigue. Such symptoms as extreme breathlessness, loss of power in throwing, tense facial muscles, flushed or overly pale complexion, loss of coordination, and frequent loss of balance are danger signals. Also when the pupil is swimming, fatigue is evidenced by a slight bluish color around the lips, goose flesh skin, and tense facial muscles. When any of these symptoms appear, the pupil should refrain from participating in the activity.

School Problems.

One difficulty in the schools of average size is that there are relatively few pupils for which it is necessary to adapt sports. According to Stone and Deyton, "small schools may devote one whole day to all the handicapped students"[12]. Consequently, it is not feasible to form regular classes or groups for the few. It is recommended that whenever possible in the smaller schools, the handicapped pupils remain in the regular physical education class and sports be adapted or modified as

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[11]Stafford, George T., Sports for the Handicapped (New York: Prentice-Hall, Inc., Second Edition, 1950).

[12]Stone, E. B., and Deyton, J. W., Corrective Therapy for the Handicapped Child (New York: Prentice-Hall, Inc., 1951), p. 52.

found necessary.[13]

The difficulty with assigning students with defects to regular classes is that the instructor may not give sufficient attention to the handicapped students, and it is sometimes very difficult to provide suitable activities for them within a regular physical education class, especially group activities. There may be one educational advantage to this plan in that the handicapped student has an opportunity to learn to adjust to his condition as a member of the regular group. This is a life situation.[14]

We are also faced with the problem of space or area in which to carry out our program. Stone and Deyton suggest that "space should be devoted to the program exclusively, preferably a separate room close to the swimming pool".[15] These of course are ideal conditions pertaining to staff and facilities. With a majority of our schools in the United States having an enrollment of two hundred or less, facilities, leadership and special room create a problem for the schools in providing for the physically handicapped. Yet, we as physical educators are responsible in providing a program for all the students, exactly where it should be.

Data taken from Stone and Deyton show a breakdown of the total number of handicapped students into the following

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[13]Irwin, op. cit., p. 322.

[14]Stafford, George T., Preventive and Corrective Physical Education (New York: A. S. Barnes and Co., 1928) p. 328.

[15]Stone and Deyton, op. cit., p. 54.

categories:

1. Cerebral palsy (age 5-17) 106,560.
2. Post poliomyelitis 62,160.
3. Other orthopedic handicaps 168,720.
4. Epilepsy 180,000.
5. Rheumatic heart disease 330,000.
6. Lowered vitality 450,000.
7. Blindness and partial sight 60,000.
8. Deafness or impaired hearing 450,000.
9. Speech (including cleft palate) 1,500,000.
10. Behavior problems 750,000.[16]

The needs of these children in most cases are not being met. Where the child has an extreme disability and cannot attend public school because of this handicap, he is generally sent to a special school. Only a small percentage of our handicapped students are being handled by these special schools. "Approximately eleven percent of the handicapped students are in the special schools. Eighty-nine percent are found in our regular schools", according to Rafuse and Oates.[17]

The eighty-nine percent of our handicapped students in the regular schools are in the group that need special attention but, except in a few cases, are not receiving it.

Sports for the Handicapped.

Growing emphasis is being placed on the development of

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[16]Stone and Deyton, op. cit., p. 8.

[17]Rafuse, Janice and Oates, D. A., "Rehabilitation of the Handicapped Child", The Journal of Health and Physical Education, XXII (June, 1951, p. 136.

sports for physically handicapped students. Many regulation sports have been and may be adapted to the needs of students with physical defects.

The sports selected for use in individual cases should not aggravate the physical defect; they should be recreational in nature; and they should ameliorate functional defects.

In some instances strong emphasis has been placed on adapting regulation sports for the handicapped rather than modifying or changing the rules and techniques. The term "adapted" as applied to sports for the handicapped has come to have a meaning implying the adaption of sports without modification.[18]

"One of the finest activities for handicapped students is swimming," states Daniels.[19] It is probably the activity which has the greatest application to the widest range of disabilities.

What Is Being Done?

In Nassau County, New York, only one school stated that no individual was excluded from the physical education program. The handicapped student participated to the best of his ability in modified activities or served as scorer and referee during those periods he was unable to participate in the regular activity.

Twenty-three schools indicated that certain types of handicapped students were excluded from the physical education

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[18] Irwin, op. cit., p. 321.

[19] Daniels, Arthur S., Adapted Physical Education (New York: Harper and Brothers, 1954), p. 194.

programs. Rheumatic heart cases were excluded from physical education in twelve schools--the largest single group. The epileptic child was excluded in only two schools.

Through the use of drugs, tremendous success has been achieved in the control of epileptic seizures, and moderate physical activity is indicated for the epileptic child.

Recommendations for excusing the handicapped child from physical education rest solely or in part with the family physician in all but two schools. Others based their decision upon the combined recommendations of the school and family physician..

In general, the procedure for most schools is to include the handicapped child in the program in those activities in which he is able to participate or to have him observe classes.[20]

Up to the time of World War II, the two main courses of action taken in regard to the physically handicapped was either to place the child in a corrective program or to excuse him from physical education.

The corrective program was found to be very unsatisfactory. At the age level when the handicapped child was finding the emotional and social adjustment difficult because of being "different", assignment to such a class merely re-emphasized this difference. Then too, there was inadequate medical supervision of the corrective program and, in most instances, the same exercise was performed by all students regardless of their

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[20]Ruggian, Claude J., "The Physically Handicapped--Our Problem, Too", Journal of Health, Physical Education and Recreation, May-June, 1958, p. 15.

disability.

Excusing a handicapped student from physical education has been regarded as the safe way out--a preventive of further aggravation of his condition. More likely this policy has proved less costly, since to plan for and to include the handicapped child in the program calls for additional time, facilities, and experienced personnel.[21]

II. EXERCISE IN REHABILITATION

The rehabilitation programs in the Armed Forces played an important part in World War II, and they have been continued in Veterans Hospitals with marked success. This has resulted in a renewed emphasis on this phase of physical education.[22] The material for this section, for the most part, was taken from Exercise and Health.[23]

In recent years previously limited studies of early ambulation and exercise as an aid to convalescence have been greatly broadened and extended. C. Etta Walter, Ph. D., of the Florida State University, accounts for this extension as follows:

> "During World War II when bed space was limited and medical care needed to be expedited, we evoked a well known, but much neglected principle in function, while disuse promoted atrophy. Instead of prolonging the bed rest after the acute phases of

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[21]Ruggian, op. cit., p. 14.

[22]Bucher, Charles A., Foundations of Physical Education (St. Louis: C. V. Mosby Co., 1956), p. 45.

[23]Bauer, W. W., and Hein, Fred V., Exercise and Health (Chicago: American Medical Association, 1959), pp. 7-9.

> treatment, patients were put on their feet as soon as possible and exercise was the usual recovery procedure."

Howard A. Rush, M.D., now a famous figure in the field of rehabilitation and during the war a pioneer leader in this change over to activity for the convalescent, summaried the finding as follows:

> "The results of our experience with the convalescent training program are most gratifying. Spot checks in various hospitals have shown hospital readmissions reduced as much as 25% because the men are being sent back to duty in much better physical condition. The period of convalescence in certain acute, infectious and contagious diseases has been reduced 30 or 40%. One hospital reported a reduction from 18 to 11 days for patients with measles and a drop of from 33 to 23 hospital days with convalescents from scarlet fever. A recent study of 645 cases of primary atypical pneumonia using two parallel groups revealed that the group permitted to convalescent in the usual manner averaged 45 days of hospitalization with 30% recurrence. The group that was very carefully supervised and intergrated into the convalescent training program averaged 31 hospital days with only 3% recurrence."

The years since World War II have seen a growing use of medically prescribed early ambulation and physical activity for all types of convalescents. C. Howard Ross, M.D., a member of the Geriatrics Committee of the Michigan State Medical Society, points out that those patients who cannot profit from suitable exercise are rare indeed:

> "Activity brings joy to the heart and solace to the mind. In many rehabilitation programs, every muscle and joint that has the power to wiggle must be made to wiggle more, and eventually bring the patient to the level of self-care. With very few exceptions, there should be a daily physical exercise program for everyone in this world."

Everyone has heard about early ambulations, and activity

following childbirth and operations, and Dr. Rusk as quoted above, has indicated a number of other conditions in which it has proved helpful. But not everyone knows that proper exercise is applicable even for certain heart patients for according to Dr. Paul Dudley White:

> "In the case of a person who has had coronary thrombosis but who is free of its symptoms, exercise is usually an important part of the treatment. Even where the symptoms exist, some sort of exercise is generally advisable, if only short walks, light gardening or deep breathing."

It would seem then, that any person no matter what his ailment might be, may be rehabilitated. Methods of course would be designated by the physician and if carried out daily or when prescribed would shorten the recovery period by substantial amounts.

CHAPTER III

AN ADAPTED PROGRAM FOR THE MENTALLY AND PHYSICALLY HANDICAPPED

A method must be devised to bring about the restoration of the individual. An attempt must be made to find the activities that will be most beneficial to the child.

The idea that only the strong and nimble can profit from physical education activities is faulty reasoning. It is the responsibility of teachers and school administrations to seek out the handicapped student and provide him with the kind of developmental experience he needs.

In most school situations, programs can be designed for many types of disabilities such as orthopedic, nutritional, functional and low physical vitality conditions.

Many factors must be considered in planning an adapted program. Basically it must be planned around the individual. It should include an understanding of the kind of disability involved, the work capacity of the student, the student's attitude toward himself and his disability and whether or not there exist problems of adjustment.

We must recognize the need for the early detection and correction of physical defects among school children. Although the defects may not lower the educability of the pupils, these defects often prove a hinderance upon the full development of their abilities and cause impairment of educability.

Of all the programs recommended for the development of

total fitness, the adapted program is the most basic. Of all the aspects of the school health and physical education programs surveyed in the nation's high schools recently, this was the lowest in status. It was only four percent effective in meeting standards. The gap between theory and practice is widest at this point. The causes are obvious: (1) lack of adequately trained teachers, (2) the higher per pupil cost for remedial instruction, and (3) the fact that more than half of the schools in the nation are below 200 in enrollment.[1]

The actual assignment to the proper adapted physical education group will be based on the cooperative judgement of the teacher and the physician. The latter determines the student limitations and capacities from a medical viewpoint. It is desirable to have the physician approve specific activities in all instances where practicable. This is true of both corrective exercises and recreational activities.

Adapted Program.

Consideration will be given primarily to those exceptional children in regular schools, because that is where the majority are getting their schooling--not in specialized training centers.

The handicapped student in school needs physical education, adapted to his limitations and capacities. It can be another link with his fellow students. It is much easier and simpler to

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[1]Bookwalter, Karl W., and Bookwalter, Carolyn W., Fitness for Secondary School Youth (Washington D.C.: American Associ- for Health, Physical Education and Recreation, 1956), p. 66.

send him to the study hall or excuse him; but, as every honest teacher knows, this is a betrayal of his needs.

The problem obviously is to find some way of adapting the program to his limitations and to use the program as a medium for his further growth and development.

Purpose. The purpose of this program will be three-fold: (1) the program should indicate the means whereby the full educational services of physical education can be made available to exceptional students on all school levels, (2) the program should provide a practical guide for physical education teachers and administrators who are working earnestly for the maximum development of each pupil, and (3) the program should study the need and purpose of a schedule with extensive treatment to be given, in which physical education may be adapted to meet more adequately the needs of exceptional children.

Guiding principles. In the conduct of this highly technical service to secondary school youth, the administrator and the teacher should be guided by the following principles:

1. There is a need for common understanding regarding the nature of adapted physical education.
2. There is a need for adapted physical education in schools and colleges.
3. Adapted physical education has much to offer the individual who faces the combined problem of seeking an education and living most effectively with a handicap.
4. The direct and related services essential for proper conduct of adapted physical education should be available to our schools.
5. It is essential that adequate medical guidance

be available to our schools and for teachers of adapted physical education.

6. Teachers of adapted physical education have a great responsibility as well as an unusual opportunity.

7. Adapted physical education is necessary at all school levels.[2]

This, then, will aid the student to face the future with confidence and aid in his growth and development progress.

Objectives. The objectives listed below are offered here for those who are charged with the responsibility of organizing and administering adapted physical education in schools and colleges. The adapted physical education program is designed to-

1. Accomplish needed therapy or correction for conditions which can be improved or removed.

2. Aid in the adjustment and/or resocialization of the individual when the disability is permanent.

3. Protect the condition from aggravation by acquainting the student with the limitations and capacities and arranging a program within his physiological work capacity or exercise tolerance.

4. Provide students with an opportunity for the development of organic power within the limits of the disability.

5. Provide students with an opportunity for normal social development through recreational sports and games appropriate to their age group and interests.

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[2]American Association for Health, Physical Education and Recreation, Committee on Adapted Physical Education (Washington: American Association for Health, Physical Education and Recreation, 1952), April, p. 15.

6. Contribute to security through improved function and increased ability to meet the physical demands of daily living.[3]

Selection of activities. The same considerations given the students in formulating his program must be continuous throughout his participation. In determining the activities in which the student is to participate, a careful study of the physician's recommendation must be made. This will indicate his physical needs. In determining his social and emotional needs it will be necessary to hold conferences with him to establish a friendly and personal relationship.

A well planned and directed program should cause the student to realize his need and should promote a desire to overcome his weaknesses. Whenever this occurs, every effort should be made to provide him with the opportunity to participate in remedial and corrective exercises.

The following chart suggests appropriate games for the ten most common defects. Games which are considered of definite value to the majority with a certain handicap are marked "x". "No" is written opposite any activity which is determental to that group, while a dash indicates limited participation only. A careful study of the physician's recommendations must be made before using this chart.[4]

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[3]Daniels, Arthur S., Adapted Physical Education (New York: Harper and Brother, 1954), pp. 82-87.

[4]Department of Education, A Guide to Teaching Physical Education in Secondary Schools (Bulletin No. 5, Third Edition, State of Florida: 1948), pp. 53-60.

PHYSICAL EDUCATION ACTIVITIES FOR THE

TEN MOST COMMON DEFECTS

Individual	Amputations	Circulatory	Foot Disorder	Glandular	Hernia	Malnutrition: Under Weight	Malnutrition: Over Weight	Paralysis: Infatile	Paralysis: Spastic	Post Operative Defects	Respiratory Nasal Defects	Spinal Deviations: Postoral	Spinal Deviations: Lordosis	Spinal Deviations: Kyphesis	Spinal Deviations: Scoliosis
Apparatus	X	-	-	-	no	X	-	-	X	-	X	X	X	-	X
Aquatics	X	X	X	X	-	X	X	X	X	X	no	X	X	X	X
Archery	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Bagpunching	X	X	X	X	X	X	X	X	X	-	X	X	X	X	X
Baseball Throw	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Basket Shooting	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Camping	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Dance (Folk & Social)	X	-	X	X	X	X	X	X	-	-	X	X	X	X	X
Football (Kick)	X	X	X	X	X	X	X	X	X	no	X	X	-	-	X
Forward & Back roll	X	X	-	-	-	X	X	X	X	-	X	-	X	X	-
Headstand	no	-	X	-	X	X	X	X	X	-	X	X	X	X	-
Med. Ball Throw	X	X	X	-	-	X	X	X	X	-	X	X	X	X	X
Track & Field	X	-	-	-	no	-	-	-	no	-	X	X	-	-	X
Athletic Games															
Badminton	X	-	X	-	X	X	X	X	-	-	X	X	X	X	X
Basketball	X	-	X	-	-	-	X	X	-	no	-	X	X	no	X
Bowling	X	X	X	X	-	X	X	X	X	-	X	X	X	X	X
Dodge Ball	X	X	-	-	X	X	X	X	X	-	-	X	X	X	-
Golf	X	X	-	-	X	-	X	X	X	-	X	X	X	X	-
Handball	X	-	X	-	-	X	X	X	X	-	-	X	X	no	X
Horseshoes	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Relays	X	-	X	-	-	X	X	X	X	-	-	X	X	X	X
Shuffleboard	X	X	X	X	X	X	X	X	X	X	X	X	X	no	X
Soccer	X	-	-	-	-	-	X	X	-	-	-	X	X	X	-
Softball	X	X	-	-	-	X	X	X	X	-	X	X	X	X	X
Speedball	X	-	X	-	-	-	X	-	-	-	-	X	X	X	-
Table Tennis	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Touch Football	X	-	X	-	-	-	X	-	-	no	-	X	-	X	-
Volleyball	X	X	X	-	X	X	X	X	X	-	X	X	X	X	X
Tennis	X	-	X	-	-	X	X	X	X	-	X	X	X	X	X

*Department of Education, A Guide to Teaching Physical Education in Secondary Schools (Bulletin No. 5, Third Edition, State of Florida, 1948), pp. 61-62.

Medical examination. It should be recognized that the adapted program is in reality a series of programs for individual students. It is also evident that in most cases these programs cannot be planned until adequate medical information concerning the individual is available. The first step, then, in organizing the program is the medical examination. Each student should be examined by a physician, preferably his family physician, before being assigned to a physical education class. In addition to the medical examination, the physician should be provided with a form for designating the type of program to which the student should be assigned. See Appendix A for suggested form to be used.

Classification and scheduling. When the report of the medical examination is received the pupil should be classified according to his defects. By classifying the student according to his defects the teacher is better able to guide the student in the formulation of a program.

A. The "A" group contains the average normal children without defects of such nature as to limit their participation in activities conducted in the regular physical education program.

B. The "B" group contains those having certain temporary or permanent conditions limiting activities, with no vigorous participation. Restricted activities would be those within the range of their capacity as indicated by the physician's diagnosis.

C. The "C" group would be those having conditions seemingly susceptible of improvement to some degree. Activities for this group would be of a corrective nature, offering an opportunity for correction of the specific defect disclosed but at the same time representing an opportunity to develop a variety of usuable activity skills for both present and later life use.[5]

The teacher should consider the matter of scheduling the student for physical education. In many cases the needs of the student can best be met by assigning him to a regular physical education class. However, it should be understood that the instructor will limit his activities in accordance with the individual's capacities. Where it is possible to assign a student in this way, he is provided with opportunities for normal social relationships with his classmates.

Evaluation of student progress. Evaluation of student progress serves two main purposes. The first is concerned with the student's achievement in terms of improvement or adjustment. It should tell the story of a triumph over a handicap, or at least the extent to which progress toward that end has been made. The second purpose of evaluation is to provide the bases for marking or grading in physical education. The first purpose noted above is primary, but because of the stature of grading

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[5]LaPorte, William Ralph, The Physical Education Curriculum (Los Angeles: The University of Southern California Press, 1947), pp. 47-56.

systems in American education, the second has an established place in the adapted program.

The pattern of grading in the adapted program should follow that established for the general program. This supplies, of course, only when a satisfactory marking plan for the general program exists in a given school situation. These should be supplemented by the use of selected, objective measures of function, range of motion and strength, individual conferences, special consultantions, and reports from referrals. When skill tests, achievement tests, knowledge tests, and social development ratings from the general program are included, a fairly complete picture of student progress is obtained.[6]

Flexibility should be a characteristic of the marking plan in the adapted program. This does not imply unwarranted concessions or grading "handouts" because such faulty devices will be seen through by the students and will destroy the possibility of the development of a sense of achievement.[7]

Good cumulative health records for each student are a valuable aid to the teacher of adapted physical education. The teacher may wish to keep an individual folder on each student in the adapted program. This folder would be designed to provide basic information for supervision on an individualized program of physical education. It would contain a brief description of the condition or disability, physician's recom-

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[6]Daniels, op. cit., p. 115.

[7]Ibid.

mendations for activity, program content, special controls for protection, and a summary of programs toward personnal goals. This record would be used to feed back to the cumulative health record certain pertinent data.[8]

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[8]Daniels, op. cit., p. 114.

Health History Form

Dear Parent: Your answers to the following questions will help the school to meet your child's needs in planning his school program and provide valuable information for our school records. Please fill out the answers and bring this form with you or send it with your child.

School_____ Room No._____

Date_____

Name_____ Address_____ Phone_____

Birthplace_____ Birthdate_____ Grade_____

Family Doctor_____ Address_____ Phone_____

Date of last visit_____

Please check any of the following conditions that your child has had (give age and date):

Asthma	_____	German measles	_____
Eczema	_____	Heart disease	_____
Hayfever	_____	Hernia (rupture)	_____
Chorea	_____	Measles	_____
Diabetes	_____	Mumps	_____
Diphtheria	_____	Poliomyelitis	_____
Ears, running	_____	Rheumatic fever	_____
Epilepsy (convulsions)	_____	Scarlet fever	_____
Frequent colds (how often)	_____	Speech defect	_____
Frequent coughs (how often)	_____	Tuberculosis-self	_____
Frequent headaches (how often)	_____	Tuberculosis-family	_____
Frequent nosebleeds (how often)	_____	Wears glasses	_____
Frequent sorethroat (how often)	_____	Tires easily	_____

Fainting-when?_____
Recent bed wetting_____
Growing pains_____
Operations-what?_____
Accidents-what?_____
Other serious illness, what?_____

Has the child been immunized against the following:

	NO	YES	IF YES, give date or dates
Diphtheria			_____
Tetanus (lockjaw)			_____
Whooping cough			_____
Smallpox			_____
Poliomyelitis			_____
Others			_____

Family History: Yes No Health condition

Who lives in the home:
Father_____
Mother_____
Brothers-ages_____
Sisters-ages_____
Others_____

_____

Health Habits:

How much milk every day?_____
Any food allergies?_____
What does child eat for breakfast?_____
Usual bedtime on school nights?_____
Give any other health information you feel we should have_____
_____
_____

_____
_____

_____
Signature of Parent

Prepared by the Health Records Committee of the School Health Section of the American Public Health Association.

CHAPTER IV

SUMMARY

The philosophy underlying the modified program is that all students who are physically able to attend school can receive some benefits from appropriate physical education. Consequently, students should not be exempted from physical education if the school is able to provide an adequate modified program for them. The handicapped students who attend school do so in order to acquire knowledge and skills which will enable them to live more effectively and in the society of others who are not handicapped. If not excused from life itself because of a physical defect, they must learn to live with their handicaps to make whatever adjustments are possible in order to gain a suitable place in society. If such students are excused from physical education, they miss the opportunity to acquire these desirable benefits. Then, too, their classroom teachers are likely to be unaware of the physical condition of the pupils and the main concern of the teachers will be with intellectual achievements. If the students are assigned to physical education, the instructor will have daily contact with them in regard to their physical condition. This procedure will give the school a closer insight upon the daily health status of the students and enable them to take their place in the normal routine of school life as participants who recognize their limitations and develop their abilities and are governed accordingly.

This, the individual must do throughout his life, so the

school should not deny him the opportunity of learning it while he is in high school.

The modified program cuts across all three years and is a part of each year's activities in both semesters. Each school will need to decide whether to have separate classes for atypical students or to schedule them in regular classes. In either case it is necessary to prescribe activities for each individual student, and this should be done in cooperation with the physicians of the students. One of the finest activities for handicapped students is swimming. However, most schools do not have access to a pool during the school term, creating one of our biggest problems.

One out of every ten students has some sort of handicap. This opportunity to be of great help to our fellow man is evident and our responsibility as physical educators.

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APPENDIX

APPENDIX

PHYSICAL EDUCATION RECOMMENDATIONS

Patient_____ Date_____

Diagnosis_____

Is the condition permanent?_____

If not, for how long do special arrangements need to be made?

_____

Is this child under your constant supervision?_____

If not, do you wish us to urge that the child return to you for a check up?_____

If so, when?_____

RECOMMENDATIONS CONCERNING ACTIVITIES

	(check)	
Avoid activities requiring excess breathing (basketball, soccer, sprinting, running).	yes___	no___
Avoid activities requiring physical contact (boxing, touch football, baseball).	yes___	no___
Avoid excessive fatigue.	yes___	no___
Avoid activities which are accompanied by extreme excitement.	yes___	no___
Participate in activities that allow intervals of relaxation (touch football, tennis, handball).	yes___	no___
Participate in activities that require little or no running.	yes___	no___
Participate in activities that require little physical exertion (table games, horseshoes).	yes___	no___
Spectator participation only.	yes___	no___
Sunbathing and walking only.	yes___	no___

Remarks_____

Signed M.D._____

Array of Direct Services for the Retarded

Life Stage	Components of Special Need						
	Physical and mental health	Shelter nurture protection	Intellectual development	Social development	Recreation	Work	Economic security
Infant	Specialized mental follow-up Special diets, drugs, or surgery	Residential nursery Child welfare services	Sensory stimulation Enviromental enrichment	Home training			
Toddler	Home nursing Correction of physical defects Physical therapy	Foster care Trained baby sitter	Nursery school Classes for slow learners		Playground programs		
Child	Psychiatric care Dental care	Homemaker service Day care Short stay home Boarding school	Special classes--educable Special classes--trainable Religious education Work-school programs	Day camps Residential camps	Scouting Swimming		"Disabled child's" benefits Health insurance
Youth	Psychotherapy Half-way house	Occupational training	Speech training Youth groups Social clubs			Selective job placement	
Young adult	Facilities for retarded in conflict Long-term residential care	Guardianship of person	Vocational counseling-Personal adjustment training Marriage counseling			Sheltered employment	Total disability assistance
Adult	Group homes Boarding homes	Evening school		Bowling Social supervision		Sheltered workshops Old age assistance	Guardianship of property Life annuity or trust
Older adult	Medical attention to chronic conditions			Evening recreation		OASI benefits	

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Developmental Characteristics of the Mentally Retarded

DEGREES of Mental Retardation	PRESCHOOL AGE 0-5 Maturation and Development	SCHOOL AGE 6-20 Training and Education	ADULT 21 and over Social and Vocational Adequacy
PROFUND	Gross retardation; minimal capacity for functioning in censorimotor areas; needs nursing care.	Some motor development present; may respond to minimal or limited training in self-help.	Some motor and speech development; may achieve very limited self-care; needs nursing care.
SEVERE	Poor motor development; speech is minimal; generally unable to profit from training in self-help; little or no communication skills.	Can talk or learn to communicate; can be trained in elemental health habits; profit from systematic habit training.	May contribute partially to self-maintenance under complete supervision; can develop self-protection skills to a minimal useful level in controlled enviroment.
MODERATE	Can talk or learn to communicate; poor social awareness; fair motor development; profits from training in self-help; can be managed with moderate supervision.	Can profit from training in social and occupational skills; unlikely to progress beyond second grade level in academic subjects; may learn to travel alone in familiar places.	May achieve self-maintenance in unskilled or semi-skilled work under sheltered conditions; needs supervision and guidance when under mild social or economic stress.
MILD	Can develop social and communication skills, minimal retardation in sensorimotor areas; often not distinguished from normal until later age.	Can learn academic skills up to approximately sixth grade level by late teens. Can be guided toward social conformity.	Can usually achieve social and vocational skills adequate to minimum self-support but may need guidance and assistance when under unusual social or economic stress.

U. S. Department of Health, Education, and Welfare, Mental Retardation Activities of the U. S. Department of Health, Education, and Welfare, Washington, D.C., U. S. Government Printing Office, July, 1963, p. 2.

PHYSICAL EDUCATION FOR THE MENTALLY AND PHYSICALLY HANDICAPPED THROUGH AN ADAPTIVE PROGRAM

by

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B. A., Kansas Wesleyan University, 1962

AN ABSTRACT OF A MASTER'S REPORT

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In the majority of cases there has been nothing done for the physically or mentally handicapped student. At the present time an estimated one out of every nine students are handicapped and in attendance in our public schools. This requires added responsibility for the teacher, as well as the school, and special education must be considered.

If physical education is to fulfill its role in education in sharing in the social, emotional and physical development of students, it is most important that some type of program be offered to those students who deviate from the so-called normal.

When handicapped students are excused from physical education they miss the opportunity to acquire desirable benefits. Since these students are not excused from life they must not be excused from the total educative process.

The program of adapted sports provides an outlet for the healthful expression of basic drives, urges, desires and emotions. Sports call for natural responses which reduce tension and nervous strain which characterize our way of life. Thus an individual is taught recreative skills which tend to make him better able to adjust to life. This program aims at providing right experiences in physical education, as it emphasizes what the handicapped can do rather than what he can't do. In order to accomplish this, the program is adapted to the physical limitations of the pupils. Less strenuous games are emphasized and considerable time is spent teaching health guidance.

Pupils in the program can take part in most of the

activities of the regular physical education program if the activities are selected and regulated. One of the finest activities for the handicapped student is swimming, but most schools do not have access to a pool.

The modified program is a part of each year's activities in both semesters. Each school needs to decide whether to have separate classes. Activities should be prescribed individually with cooperation with the physician of the student.

The physical educator can perform an important service to mankind by developing a program for one and all.