

ADAPTED PHYSICAL EDUCATION
FOR THE PHYSICALLY HANDICAPPED
INDIVIDUAL

by

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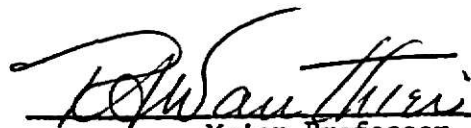
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INTRODUCTION

"The first goal in education for democracy is the full, round and continuing development of the person."¹ For many years education in the United States emphasized solely the intellectual development of the individual and neglected other phases of his personality.

In accord with modern educational psychology, however, the concept of the whole personality has been recognized as the desired goal. Thus, educational objectives of today are directed toward both the intellectual development and the social, emotional, physical, and psychological needs of the student.

The physically sub-par and the physically handicapped students in our schools today desperately need the advantages which result from careful program planning and inspired teaching. They need these advantages far more than does the natural born athlete on whom the attentions of the high school and college are frequently concentrated.

Those individuals who profess a democratic philosophy and believe in the inherent worth of each individual and his rights to full development have an obligation to provide a physical education program for all students in our schools. This tremendous challenge is not being met in many high schools and colleges.²

In physical education classes, where there are both individual and group

¹President Commission on Higher Education, Higher Education for American Democracy (New York: Harper and Brothers, 1947), p. 9.

²George J. Stafford and Ellen D. Kelly, Preventive and Corrective Physical Education (New York: The Roland Press Company, 1958), pp. iv, v.

participation in selected activities, influence is exerted not only on the physical growth and development, but also on social adjustment, emotional stability and self-realization of value gained by participating individuals.

In the total development of the handicapped student, participation in physical activities plays just as important a role as in the development of the normal individual.

The importance of physical education to the developmental progress of the handicapped student has long been recognized. Frequent mentions have been made in histories of physical education concerning the use of exercises and physical activities for remedial purpose. This phase of physical education has had many different titles such as remedial and individual gymnastics, therapeutic exercises and corrective physical education.

During World War II added impetus was given to reconditioning and rehabilitation programs by the greater emphasis that was placed upon the hospital programs of the Armed services. It was found by adaptation and modification of physical activities to individual needs and conditions that most of the handicapped men were able to participate in varying degrees, thus facilitating their conditioning or total rehabilitation.

Observation and study of the conservation of human resources have resulted in a realization by educators of the need for increased emphasis on rehabilitation programs for the handicapped student. Ideally democratic educators recognize that any student who has been out of school for any length of time because of ill health is assisted in his rehabilitation or total development, socially, physically and intellectually, by adapted physical education.

Although rehabilitation of the handicapped individual is dependent upon many interrelated factors, his participation in physical activities with his

peers greatly assists him in gaining an accepted and recognized role in society.

PURPOSE

Statement of the Problem. The purpose of this paper is to discuss programs of adaptive physical education and their place within the overall educational system.

METHOD OF STUDY

To gather information for the report it was necessary to correspond with the Cripple Children Commission, Kennedy Foundation, several state education departments, San Diego Public Schools, governmental pamphlets, Easter Seal organization, etc.

A visitation to Fitzsimons Army Hospital in Denver, Colorado, and the adaptive program in the Denver public schools, also aided in providing material for this Masters Report.

To finalize the report, extensive research was done in the library.

DEFINITIONS OF TERMS USED

Many words can be used to identify or describe the special physical education program. However, the words that are used are not of primary importance as long as the scope of the program is clearly understood and carried out. For the purpose of communication it is most desirable that the universally accepted terminology be used.

The term "adapted" has become the accepted descriptive term for the physical education program developed for those individuals who cannot receive maximum

benefits from a regular program. In 1947 the American Association for Health, Physical Education, and Recreation defined adapted Physical education as:

A diversified program of development of activities, games, sports, and rhythms suited to the interests, capacities, and limitations of the students with disabilities who may not safely or successfully engage in unrestricted activities of the physical education program.³

Normal Individuals. Normal individuals are "Those who display reactions and behavior patterns which are the most prevalent and the most widely accepted by our society."⁴

Handicapped Individuals. Handicapped individuals are "Those who because of physical, mental, or emotional difference cannot display the reactions and patterns of behavior of the normal segment of society."⁵

Atypical. "The term atypical is used to identify the individual with certain physical handicaps or defects which may limit his ability to use fully all his body parts and to achieve reasonable success in the whole range of life adjustment, including the normal sport activities of the usual physical education program."⁶

Limitations. Only the physically handicapped student and the mental and emotional problems that are connected with or caused by the physical disability are dealt with in this discussion. The retarded or the emotionally disturbed child per se is not discussed.

³Hollis Fait, Adapted Physical Education, (Philadelphia and London: W. B. Saunders Company, 1960), pp. 2-3.

⁴Fait, op. cit., p. 3.

⁵Ibid., p. 3.

⁶George J. Stafford, Sports for the Handicapped, (New York: Prentice-Hall Inc., 1947), p. 2.

RESULTS AND DISCUSSION

THE NEED FOR ADAPTED PHYSICAL EDUCATION

The National Society for Crippled Children estimated that 25-50 percent of the more than five million children of school age in the United States who required special education because they were handicapped could be helped by adapted physical education.⁷

However, this number did not include the awkward or poorly coordinated and the weak student who could not participate adequately in a vigorous physical education program.

These students, though often overlooked, are truly physically handicapped. They do not have the coordinated movements of their peers and are often laughed at, scorned, and ridiculed by their classmates. These students may be filled with anxieties and fear of failure.

A special class in physical education would be most important and beneficial for this group of students, as well as for those with the obvious disabilities.

Facts illustrating this need for better physical exercise programs were well documented in the draft reports of World War I and II. World War I disclosed that nearly 50 percent of the nation's young men were physically or mentally deficient. The same figures were true for the second World War, and further facts noted that 33 percent of the women volunteers were also rejected because of the same difficulties. Of those that did pass the medical examinations, many were unfit for vigorous military life, and a few were discharged

⁷J. C. Ruggion, "Physically Handicapped: Our Problem Too", Journal of Health, Physical Education and Recreation, 29:14-15, May, 1958.

for being unable to achieve a satisfactory level of physical fitness deemed necessary for military duties.⁸

A certain percent of these rejects might have been eliminated if there had been an adaptive physical education program available and mandatory.

Mathews, Kruse and Shaw reported that there are approximately four million children in the United States who require special education because of a handicap. More than 3.5 million children of this number received regular class instruction and the remaining children attended special schools.⁹

The children whom the physical education instructor might consider to be handicapped, according to the objectives of his profession, are not considered great in number. That is, children that are faced with such problems as poor motor coordination, sub-strength, obesity, and impaired body mechanics, might not meet certain specified standards of physical education. Therefore, the number of students who would greatly benefit from an individualized adaptive physical education program is astounding.

The problem of physical education for the handicapped can no longer be ignored as it all too frequently has been in the past. "Of the approximately 200 million people in the United States approximately one out of every eight of the total population has been classed as handicapped."¹⁰

Many students have become chronic invalids because they were restricted

⁸Stafford and Kelly, op. cit., pp. 6-7.

⁹Donald K. Mathews, Robert Kruse and Virginia Shaw, The Science of Physical Education. (Harper & Brothers, 1962, pp. 1-2, New York).

¹⁰Stafford and Kelly, op. cit., p. 7.

from experiencing needed exercise because of their physical handicap. The handicapped student may not be able to endure vigorous exercise but can benefit from properly prescribed and conducted programs of physical education.

PRINCIPLES OF ADAPTED PHYSICAL EDUCATION

Before the purpose of adapted Physical Education in the over-all school program is established, it is important to consider some general attitudes that have been developed toward the physical handicapped person. Society frequently does not realize that these individuals have special problems and need help, encouragement, recognition and attention. It is unjust that the handicapped be neglected. Society has tried to ignore the handicapped individual with an assumption that all of his problems in life work out eventually.

Only recently have schools in the United States taken an active interest in attempting to solve the problems of the handicapped. Perhaps this interest stemmed from the rehabilitation program inaugurated in the nineteen forties when in World War II the United States Army Air Force developed an extensive program of rehabilitation for injured men.

A similar program was used by the Navy. J. M. Beam in writings concerning the development of the Navy program, stated, "This program aims at the complete restoration of the man to normalcy--physically, emotionally and socially."¹¹

The purpose and aims of the total educational program for elementary and secondary schools should not be any less than those of the Navy's. During a student's early development it is just as important as in later life, that he be allowed to participate in a program which can accomplish these aims.

The committee on Adapted Physical Education of the American Association

¹¹J. M. Beam, "Sports for the Handicapped." The Journal of Health and Physical Education, 17:272, May 1946.

for Health Physical Education and Recreation has developed a set of guiding principles for a program of adapted physical education.

The principles are as follows:

1. There is 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 the proper conduct of adapted physical education should be available to our schools.
5. It is essential that adequate medical guidance be available 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 levels.¹²

These principles offer a direct and tremendous challenge to the schools of our nation and even more, they express the responsibilities of the school to the handicapped students.

¹²American Association for Health, Physical Education, and Recreation: Committee on Adapted Physical Education, "Guiding principles of adapted Physical Education," Journal of Health, Physical Education and Recreation, 23:15, April, 1952.

THE ADMINISTRATION OF ADAPTED PHYSICAL EDUCATION

Medical Aspect of the Adaptive Physical Education Program

Adequate medical guidance is essential for the operation of a successful adapted physical education program. Because of the possibilities of serious pathological problems, the program should not be attempted without a diagnosis of pertinent cases, followed by a written recommendation and supervision by a physician.

Each student's needs are different and must be planned for individually and before any student is permitted to participate in physical education activities, a medical examination should be required to provide protection for both the student and the school personnel. Examination of the student should be administered by the student's family physician, who may know the history of the individual, or a qualified physician. The physician should identify any defects, handicaps, or pathological complications and express recommendations for their control or correction.

As a result of these examinations, students may be classified either as unrestricted in physical education participation, or in need of special or corrective physical education.¹³ A physical examination should be administered once a year during the school career of the student to achieve the best results.

Frequently, it is possible to have the examination only once, whenever the student enters school. This is not desirable since it is possible that after the physical examination, the student might develop a condition which would not be known to the family physician and this condition could have an

¹³Stafford and Kelly, op. cit., p. 3331.

effect on his participation in the program if the physical education teacher was not aware of it.

If the school does not require a medical examination before participation in physical education, the physical educator should make an all-out effort to have this practice established as a part of the requirement for entering the program.

Selection of participants for an adaptive program should be made primarily upon the recommendation of the physician but in determining participants for the program certain tests and measurements in the regular physical education class should also be conducted. Various strength tests may be used; for example, the strength test set up by F. R. Rogers, the Physical Fitness Index.¹⁴ This test consists of various strength abilities along with age and size. The Physical Fitness test for each student is found as a ratio of the student's achieved strength to the established normal.

A general screening test for posture problems should also be carried out in the regular physical education class. Any deviations should be referred to the physician who in turn will determine the best type of activities for the student.

The Teacher of Adaptive Physical Education.

The teacher of adaptive physical education must have special training to carry out the program of correction, recreation, and rehabilitation entrusted to him.

According to Clarke and Elkins, the graduate of physical education is

¹⁴H. Harrison Clarke, Application of Measurement to Health and Physical Education, Englewood Cliffs, (New Jersey: Prentice Hall, Inc. 1959), p. 137.

definitely not prepared upon graduation to treat the disabilities.¹⁵

The proper preparation of the physical education instructor for rehabilitation entails a post graduate study for this particular specialized program. Post graduate study must include advanced courses in anatomy, kinesiology and physiology and training related to pathologic, orthopedic, neurologic and psychiatric conditions.

The adapted physical educational instructor should be thoroughly acquainted with therapy exercises, adapted sports, recreational activities and should have clinical experience with patients in hospitals and rehabilitation centers.

Actual work in clinics or hospitals will give the teacher experience in physician-patient relationship and training in ethics concerning the existing medical problem. Perhaps one of the greatest assets that he will gain will be the experience in the establishment of rapport with the handicapped student.

Apparatus For The Program.

A program of corrective exercises does not involve complicated or expensive apparatus. A simple homemade appliance can be a useful substitute provided always that it is designed for the muscles that require its services.

Most regular physical education equipment will be satisfactory for the program. Other equipment that would be desirable include wall weights and pulley system. A separate room, preferably a small gymnasium, is desirable for the conducting of the class. Specific equipment may be permanently

¹⁵Harrison Clarke and Earl Elkins, "Evaluation of Training of Physical Educationalist for Reconditioning and Rehabilitation," Archives of Physical Medicine, 29:99-107, February, 1948.

installed for muscle strengthening. A portable pulley system would probably be best for the program. The remaining equipment should be readily available in the nearby storage room.

Class Organization and Instruction.

There are two basic plans that can be used in scheduling of classes; these are the segregated or special class, and the integrated or regular class. However, possible combinations of features from both programs may best meet the conditions in any particular school.¹⁶ Few schools have the facilities or staff to conduct a segregated or special class; therefore, it is suggested that the regular class program be established.

This involves placing the students in need of preventive or corrective physical education in the same classes with the non-handicapped student. Stafford and Kelly point out that the psychological need of the handicapped to identify themselves with the whole group can be preserved in the integrated or regular class.¹⁷ As a result of remaining in the regular class with the non-handicapped students, the handicapped are often motivated to improve their condition so that they may be able to participate in the regular class activities.

The handicapped student should engage in as many of the regular class activities as possible. When activities are beyond their limitations or capacities, special activities and exercises should be substituted. Many times the student will not be able to participate in a certain activity or sports

¹⁶ Stafford and Kelly, op. cit., p. 363.

¹⁷ Ibid., p. 368.

game.

For example, during a basketball unit, the student with a heart condition may not engage in the game itself but he might be assigned to ball handling skill to whatever extent he could or should participate, to learn to coach the team, to score, and to referee.¹⁸ The instructor should never yield to the easy method of simply having the student sit and watch. The handicapped student gains many social benefits while participating in class with the non-handicapped students.

The physical educator should consult the doctor and/or carefully read his report and recommendations to determine the exercise tolerance of each handicapped student before he is allowed to participate in the program. This will enable the instructor to plan activities for the handicapped student throughout the year.

Establishing the adaptive program requires modification of rules for stunts, sports, games and relays. The following modifications will prove valuable in setting up a program:

1. Limit playing time.
2. Decrease size of playing field, court and area.
3. Substitute walking steps for running steps.
4. Limit player or players to a definite place or position.
5. Substitute lighter, more easily controlled equipment.
6. Increase number of players.
7. Permit players to hit ball any number of times, as in volleyball.

¹⁸Stafford and Kelly, op. cit., p. 373.

8. Allow player to hold ball for a longer period of time, as in basketball.
9. Decrease the distance of service in volleyball or in tennis, with a lower net.
10. Allow the player to hit ball on second or third bounce in tennis.
11. Permit another player to run in place of a batter.
12. Require frequent rest periods when need is indicated.

Physical educators must remember that participating is not the only aim of the program. Many people of the American society are spectators of sport activities rather than actual participants. Thus, if the disabled individual acquires a better knowledge of the strategy and rules of the game, he will gain more enjoyment as a spectator.

However, participation is a very important aim. Stafford states, "With the adapted sports method the student very often continues the activities outside class."¹⁹ The corrective effect may be initially less with the adapted sport method than with the formal corrective exercise but the continuation of the activity outside of class often gives enough additional participation to result in as much correction as might be obtained by the formal exercises. A student may be much more inclined to pursue on his own time the fun of table tennis or badminton rather than corrective exercises.

The physical education instructor, when organizing the adapted program, must in addition to students with permanent handicaps, keep in mind the students who have temporary disabilities. For instance, the student who has sustained a bone fracture and cannot participate in the program for a period

¹⁹ Stafford, op. cit., p. 49.

of time and then returns to the physical education program, poses a special problem and unquestionably requires special attention. The muscles of the injured limb will be deteriorated due to inactiveness and will not be ready for the strenuous competitive activities of the regular program. The instructor will have to place certain restrictions on the student's activity and certain exercises will have to be performed to gain the limb back to normal.

The instructor must not forget the student who has been absent from school for a long period of time due to some illness for he also may be in a weakened condition. Consultation with the family physician may be desirable to determine the activities in which the student can participate.

MENTAL HEALTH OF THE PHYSICAL HANDICAPPED INDIVIDUAL

"Physical defects sometimes produce special educational, psychological and social problems."²⁰ They sometimes indirectly present problems of personality maladjustments, educational failures, and mental hygiene problems. These problems exist from the subject's attitude toward his defects and from the unfavorable opinion (or supposedly unfavorable opinion) of others.²¹

The mental problems appear to be more difficult than the physical problems and many times they are the major obstacles in the adjustment or recovery of the handicapped individual. Every student, physically able or physically disabled, has a concept of his body. This body image is important because it has a great influence on the manner in which he imagines his own personality.

Before an instructor can develop an adaptive program for the handicapped student, he must have an understanding of his mental outlook. The normal student has difficulty in adjusting successfully to many problems that he encounters during his school years, so, how much more difficult is it for the disabled individual to make the necessary adjustments needed for living a happy and successful life.

The social and psychological effects of a physical disability may present the handicapped student with many more problems than the actual impairment itself. Numerous investigations have attempted to determine the effects of a specific disability on the social position and the personality of the handi-

²⁰J. E. W. Wallin, Personality Maladjustments and Mental Hygiene. (New York: McGraw-Hill Company, 1935), p. 168.

²¹H. H. Kessler, "A National Program for the Amputee," Journal of Rehabilitation, 12:4-12, August, 1946.

capped student.

Dewey Force administered a sociometric instrument to 361 normal youngsters and sixty-three handicapped youngsters to determine the effects of a specific disability on the social position of the disabled child. The children were asked to reveal choice behavior on the following three criteria: (1) Friends; (2) playmates; and (3) workmates.

The results of the findings indicated rather objectively that the handicapped child did not enjoy a social status that was comparable to that of his normal classmates. The research also indicated that children suffering from cerebral palsy, orthopedic handicaps and visual defects received significantly fewer numbers of response on all criteria than the normal child.

Children who suffered from defective hearing were also chosen less often as playmates with the exception of the children suffering from cerebral palsy.²²

In addition, the child may not like himself. Mathew, Kruse and Shaw state that the body image, sometimes referred to as the self-concept, is a person's conception of his own body and it might play a vital role when it pertains to the handicapped.²³

According to James Garrett physique is one of the raw ingredients of personality. He points out that a person's own body image modified his personality as well as his interrelationship with those around him.²⁴

²²Dewey Force, Jr. "Social Status of Physically Handicapped Children," Exceptional Children, 23:104, December, 1956.

²³Mathew, Kruse, and Shaw, op. cit., p. 37.

²⁴James Garrett, "Psychological Aspects of Physical Disability," Office of vocational Rehabilitation, Rehabilitation Service Series, No. 210, Superintendent of documents, U.S. Government Printing Office, Washington, D.C.

Cruickshank conducted a research of the handicapped child in relation to his body image and reported that children with orthopedic, cardiac, neurological handicaps as seeing themselves with more fears and more feelings of guilt than children of normal physical characteristics. The study further showed that handicapped self body does play an important part in his adjustment.²⁵

Many psychologists and psychiatrists believe that there are personality problems that are characteristic of the handicapped child. Mussen and Newman reported that the adjustment of these handicapped children tended to be less mature and the areas in which major problems arose were in areas of interpersonal relationships. They also reported that the handicapped appeared to be more concerned with maintaining their existing ego structures than with adjusting to new social situations. They indicated that parental understanding and acceptance are very important aspects in the psychological well being and adjustments of the child.²⁶

Fait points out that regardless of how nearly normal body function and physical performance might be, many psychological problems result from the presence of a disability. He points out that the disability might create anxieties and fears about itself or its effect upon the future. He believes that the individual is encountered with frequent frustrations and that the individual's sense of security and self-confidence are threatened. The disability might cause the individual to have a feeling of guilt, especially

²⁵William M. Cruickshank, "The Relation of Physical disability to Fear and Guilt Feelings," Child Development, 22:291-298, December, 1951.

²⁶Paul H. Mussen and David K. Newman, "Acceptance of Handicapped, motivation, and adjustment in Physically Disabled Children," Exceptional Children. 24:255. February. 1958.

when he believes that he is being punished by the disability.²⁷

The handicapped may have trouble assuming a good self-identity or a satisfying role in society. Because of the adverse reactions of other individuals to abnormal physical characteristics such as peculiar body build, facial features, and obvious physical deformities he may be teased or ridiculed.

The individual who suffers from extreme deviations from the normal might be cast into an inferior social role due to the intense reactions of others created by these deviations. Therefore, it is evident that the adjustment of the handicapped individual is often greatly influenced by others in his social environment and his reactions to them.²⁸

Whenever an individual is suddenly disabled by an injury or illness, after his personality traits and patterns of adjustment have been developed, he will have to make new adjustments in relation to his handicap. But these new adjustments will have to be largely of the same nature as the previous psychological adjustments. If the individual's previous psychological adjustments were good, he will probably find satisfactory solutions to the new emotional problems. The individual who has a maladjusted personality will probably use the same unacceptable means for solving his problems that he used before the disability occurred.²⁹

According to Valerie Hunt the needs of the disabled individual are similar to those of the normal person and these needs play a part in the adjustment of the disabled. The disabled individual has a strong need for acceptance, understanding and independence and if he is deprived of these needs,

²⁷Fait, op. cit., pp. 11-12.

²⁸Fait, op. cit., p. 12.

²⁹Ibid., p. 14.

he may be delayed in his adjustment. And Hunt further states that many disabled individuals have developed excessive tensions due to their disabilities, and their frustrations are shown through their attitudes in play. It appears that social and motor insecurity might lead the disabled individual into a withdrawal state, therefore special attention should be given to the social and motor skills that might be underdeveloped.³⁰

Jerome Siller conducted a study investigating twenty-four children who were amputees. He found feelings of inferiority and shame to be important components in the psychological functioning of more than one-third of the children.³¹

Garrett³² reported some of the psychological aspects of physical disability. He indicated that the social status of the physically disabled child is analogous to that of minority group members, placing these children into a situation where feelings of inferiority and worthlessness develop. In an effort to compensate for his weaknesses and because the disabled student is limited in his functions, he has a tendency to become dependent upon the protection of the instructor who has a unique opportunity to counsel and guide the student toward acceptance and understanding of his limitations and from there to independence.

A good summary of mental problems connected with physical handicaps can

³⁰Valerie Hunt, Recreation for the Handicapped, (New York: Prentice Hall, Inc., 1955), p. 52.

³¹Jerome Siller and Ed Peizer, "Some Problems of the Amputee Child in School", Education, 78:141-147, November, 1957.

³²Garrett, op. cit., pp. 119-122.

be found in The Science of Physical Education by Mathew, Kruse, and Shaw who come to the following conclusions:

1. Physically disabled persons, more frequently than physically normal persons, exhibit behavior which is commonly termed maladjusted.
2. About 35 to 45 percent of disabled individuals are reported to be as well adjusted as or even better adjusted than nondisabled persons.
3. The kinds of maladjusted behavior exhibited by physically disabled people is not peculiar to them; they are similar to those shown by nondisabled people.
4. There is some evidence that withdrawing, timid, and self-conscious behavior is most frequent.
5. There is no evidence of relationship between kind of physical disability and type of adjustment behavior; within a wide range of physical disabilities, the behavior results do not differ.
6. Emotional attitudes toward their disabilities are dynamic and can be altered.
7. It is probably true that persons with a long history of physical disabilities are more likely to exhibit behavior maladjustment than those with a short history of disabilities.
8. The physical effects of disability have social significance, for physique is one of the bases on which class and caste distinctions are made. Also, as stated earlier, physique is a raw ingredient of personality.
9. The physical disabled has been likened to a minority group in terms of obtaining social status.³³

These conclusions demonstrate the importance of the physical education instructor in understanding the physically handicapped individual.

The following discussion will illustrate how the adapted sports program, which is one phase of the adapted physical education program, can be of benefit to the mental and emotional adjustment of the physically handicapped individual.

³³Mathews, Kruse, and Shaw, op. cit., pp. 39-40.

AN ADAPTED PHYSICAL EDUCATION SPORTS PROGRAM FOR
THE PHYSICALLY HANDICAPPED INDIVIDUAL

The values of physical education should be just as meaningful and beneficial to the handicapped as to the normal student because he needs an opportunity for social as well as physical development that is not available to him in other facets of his life.

Physical education can also provide him with the opportunity to satisfy his basic needs for success and acceptance by his peer group.³⁴ The physical educator can help meet these basic needs of the handicapped student by developing an adapted sports program.

Frederick Chapman states that the vital interest of American people in athletics makes it almost mandatory that recognized sports or some modification of them be included in programs for the handicapped individual.³⁵ In addition to providing a means of approach to and acceptance in the "normal" world, the sports activity program should also lead to an improvement of the disabling condition. This two-fold direction fulfills the goals of education through the media of physical activity.³⁶ The physical educator must remember the following points in designing his program:

1. The activity should never aggravate an existing injury.
2. Activities should be appropriate to the age level of the child.
3. The child should be able to find success in the activities in which he participates.

³⁴Mathews, Kruse, and Shaw, op. cit., p. 56.

³⁵Frederick Chapman, Recreation Activities for the Handicapped, (New York: The Ronald Press Company, 1960), p. 235.

³⁶Mathews, Kruse, and Shaw, op. cit., p. 49.

4. It is wise to select activities which have lasting recreational value.³⁷

Many physical educators group the handicapped students for participation according to the disabilities but it would be more desirable to classify them on the basis of interest rather than on the degree of handicap, for the students' happiness and social skills are of primary importance in regard to their success in getting along with one another.

If it is possible, the instructor should place the handicapped students with the non-handicapped when the nature of the activity is possible for all to compete on a nearly equal basis, because this puts emphasis on what the student can do in relationship to the other students. The instructor should also try to place the handicapped with students of his own age, whose desires, needs and interests are similar to his, because he will be a far more valuable member of his group than being placed in a group of older or younger students, and as a result he will be able to learn more.³⁸

A good example of an activity that could be included as a group sport in the program is swimming. Arthur Daniels believes that it is one of the finest activities for handicapped students because it probably has the greatest application to the widest range of disabilities. Swimming offers many values to the disabled student such as specific therapeutic values, important skills, recreational, and safety benefits.⁴⁰

³⁷ Ibid., p. 48.

³⁸ Ibid., p. 49.

³⁹ See "Types of Exercise and Sports," column three, p. 26 of this paper.

⁴⁰ Arthur Daniels, Adapted Physical Education, (New York: Harper and Brothers, 1954), p. 9.

Psychological values might be gained from swimming; when the disabled student has a chance to swim often, then his concept of himself might change as he develops skills.

If he is able to swim in pleasant surroundings, the experience at all skill levels might be so interesting, absorbing and rewarding that mental freedom from the disability may occur, along with physical freedom.

Social values might be obtained from swimming, because the handicapped joins a vast group of people who use swimming as a recreational outlet. Swimming also offers physical and physiological values because it makes possible muscular control and coordination, range of motion from very limited to full movement, and strength and endurance.⁴¹

Daniels states that the following disabilities are the more common conditions found in the school population and that some can benefit from swimming: (1) Paralysis; (2) Cerebral Palsy; (3) Epilepsy; (4) Amputees; (5) Muscle Debility; (6) Bone and Joint injuries; (7) Body mechanics problems; (8) Cardiac conditions; (9) Low physical vitality; (10) Deafness; (11) Blindness and partial sightedness; (12) Emotional instability; (13) Diabetes^{s. 42} He points out that it should be understood that not all the conditions previously mentioned will be physically improved through swimming. He believes that although some might, in all cases the benefits will be largely in the nature of personal adjustment.⁴³

Little evidence is available to prove that physical disabilities show

⁴¹Ibid., pp. 197-198.

⁴²Ibid., p. 201.

⁴³Ibid., p. 201.

much improvement under an adaptive sports program, but there is a valuable contribution in the correction of the neuroses and other faulty mental attitudes and in the social benefits which are gained from sports and games.⁴⁴

The morale and self-confidence of the amputees who convalesced in the Armed forces hospitals were restored as a result of their learning to dance and to drive a car. Due to their success in rowing, dancing, swimming, weight lifting, and bowling, blind servicemen improved in physical and emotional fitness. There are competitive national and international sports for the wheel chair individuals which satisfy a lot of needs for the talented disabled.

To implement the goals of improved mental health, better social adjustment, as well as development of physical skills many types of programs can be developed. These programs should do any or all of the following:

1. Have some corrective or ameliorative value for particular functional defects.
2. Have a minimum of "expectancy of injury" or aggravation of the handicap.
3. Have some recreative value for the individual with either functional or structural defects."⁴⁵

The following list indicates which activities may be included.

⁴⁴Stafford, op. cit., p. 38.

⁴⁵Stafford, op. cit., pp. 51-52.

Types of Exercises and Sports

<u>Active</u>	<u>Moderate</u>	<u>Light</u>
Competitive Swimming	Swimming	Aquatic exercise
Gymnastics	Bowling	Relaxation exercise
Badminton	Archery	Croquet
Softball	Deck Tennis	Golf putting
Wrestling	Paddle Tennis	Quoits
Speedball	Dancing	Darts
Soccer	Volleyball	Casting
Field hockey	Selected Tumbling	Card games
Basketball	Golf	Body mechanics
Touch football	Individual exercises	Bowling
Winter sports	Tetherball	Shuffle board
Weight lifting	Bag punching	Table games
Tennis		Horseshoes
		Riflery
		Archery
		Box hockey

If the school system is to serve the complete needs of the student, whether they are non-handicapped or handicapped, physically, emotionally, and socially, it is essential that an adaptive program be implemented.

SUMMARY

The various studies and findings that are brought out in this report show, 1. that there is a vital need for an adaptive physical education program in many, if not most school systems in the United States, and 2. that an adaptive program can be worked into any regular program with a minimum of expenditure, 3. that the physical education instructors awareness, concern, and willingness to attempt a program are the vital ingredients in initiating an adaptive program for the physically handicapped. The physical education programs generally offered in the schools are usually designed to meet the need of the non-handicapped or coordinated, and the handicapped students become neglected and/or forgotten. The first step in providing a sound physical education program for the physically handicapped is to provide (employ or train) realistic, enthusiastic, patient personnel, who really care and are willing to improvise within the program to encourage maximum effort and bestow confidence to the special students for who mental blocks and fearful attitudes maybe worse obstacles than their actual physical handicap.

Of course, a sound program must incorporate the physician, parent, school administration, school nurse, and the physical education instructor, so that the whole student is treated. A required physical examination for all students may serve the first indication of what the adaptive program should include. Adaptive programs must be flexible, not only from year to year, but often within the year.

Such flexibility demands a specially trained teacher who should have advanced training in therapy, clinic experience, and courses. Although the instructor should have special training in most cases with some improvisation,

the equipment and/or activities for a regular physical education program can be utilized for the handicapped student who usually gains more by being in a regular class than being placed in a special group.

A swimming program seems most suitable for all kinds of students, but modification of equipment and rules in all areas may be provided, allowing the handicapped to participate in regular classes where he does not feel isolated, and where he can be an accepted member of his peer group. This acceptance is a vital factor for the handicapped student because his mental and emotional adjustments and improvements cannot be separated from his physical progress if the adaptive program is to provide realistic benefits that will last beyond the school years.

Providing a sound adaptive physical education program tailor made for each exceptional student is difficult. It requires extra planning, concern, time, and knowledge, but it is the obligation of every physical education instructor to provide such a program within his school system.

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APPENDIX

APPENDIX A

PHYSICIAN'S REFERRAL FOR ADAPTED PHYSICAL EDUCATION

To the Physician of _____ (Name of student)

The above student attends _____ (school), which provides adapted physical education classes for students who should participate in a special program because of their physical condition. To identify specific needs of each pupil, the physician, parents, and school personnel must work cooperatively. The adapted program is organized to care for individual needs as recommended by the student's physician. The teacher is especially trained to carry out such recommendations.

To meet state requirements, the diagnosis and activity recommended must be supplied by the examining physician. All such information is treated confidentially.

DIAGNOSIS: _____

RECOMMENDATIONS:

- _____ 1. No restriction on any type of physical activity at school.
- _____ 2. Should participate in regular physical education activities only (not after school activities).
- _____ 3. Adaptation in physical education to fit individual needs:
 - _____ a. Little running or jumping
 - _____ b. No running or jumping
 - _____ c. No activities involving body contact
 - _____ d. Exercises designed for rehabilitation
 - _____ e. Vigorous conditioning exercises
- _____ 4. Other adaptations: (Specify) _____
- _____ 5. Specific Exercises: (please check the activities which you consider desirable for this student)
 - _____ a. Light posture and physical fitness exercises
 - _____ b. Corrective exercises for specific condition
 - _____ c. Rest: Sitting rest with non-active games
 - _____ d. Rest: Lying down rest - no activity
 - _____ e. Regular class activities modified to prevent overexertion

I recommend the adaptation for: 2 weeks____; 6 weeks____; semester____; other____

UNLESS SPECIFICALLY FORBIDDEN BY PHYSICIAN, STUDENTS WILL DRESS FOR CLASSES AND
TAKE DAILY SHOWERS Physician (please print) _____

Teacher _____ Physician _____ Date _____
(Signature)

Phone No. _____ Address _____ Phone No. _____

Please mail to: School Nurse, _____
(Address)

School nurse retains this form after the adapted teacher records appropriate information in student's Individual Adapted Physical Education Folder.

APPENDIX B

ADAPTED PHYSICAL EDUCATION ADMISSION AND RELEASE FORMAPPLICATION FOR ADMISSION

<u>Name of Student</u>	<u>Grade</u>	<u>School</u>	<u>Date Enrolled</u>
------------------------	--------------	---------------	----------------------

Reason for application: _____

Committee Action

1. _____
Physical Education Teacher
2. _____
School Nurse
3. _____
Student's Counselor/Advisor
4. _____
School Physician
5. _____
Physical Education Instructional Counsul-
tant/District Resource Teacher

Application for Release

<u>Name of Student</u>	<u>Grade</u>	<u>School</u>	<u>Date Enrolled</u>
------------------------	--------------	---------------	----------------------

Committee Action

1. _____
Physical Education Teacher

2. _____
School Nurse
3. _____
Student's Counselor/Advisor
4. _____
School Physician
5. _____
Physical Education Instructional Counsul-
tant/District Resource Teacher

When all five people have signed the application for admission it is to be retained by the adapted physical education teacher. When all five people have signed the application for release it is to be filed with the nurse.

APPENDIX C
POSTURE SCREENING FORM

Name _____ Date _____
 Grade _____ Period _____ Teacher _____ Ht. _____ Wt. _____

<u>DEVIATIONS</u>	<u>LATERAL</u>	<u>ANTERIOR</u>	<u>POSTERIOR</u>
1. Body Lean	Twist - Tilt (R L)	Forward	Backward
2. Head	Tilt (R L)	Forward	
3. Chest		Flat Elevated	
4. Shoulders	Tilt (Low (R L))	Forward (R L)	
5.	Scapulae-Winged (R L)		
6. Back	Scoliosis -Cervical (R L) -Dorsal (R L) -Lumbar (R L)	Kyphosis - Lordosis Sway	
7. Abdomen (Ptosis)			
8. Pelvis	Prominence (R L) Low (R L)		Rotation (1-2-3)
9. Legs	Tib. Tor. (Int. Ext.)	Knocked (1-2-3) Hyperes. (1-2-3)	Bowed (1-2-3)
10. Feet			
Arches	Weak - Flat - (1-2-3)		
Toes	Valgus - Hammer		
Ankles	Pronated (R L) - (1-2-3)		
11. Remarks			

**ADAPTED PHYSICAL EDUCATION
FOR THE PHYSICALLY HANDICAPPED
INDIVIDUAL**

by

**PAUL D. MARKHAM
B.S., McPherson College, 1947**

AN ABSTRACT OF A MASTER'S REPORT

submitted in partial fulfillment of the

requirements for the degree

MASTER OF SCIENCE

Department of Physical Education

**KANSAS STATE UNIVERSITY
Manhattan, Kansas**

1970

There have been considerable talk, numerous articles and books written concerning the adaptive physical education program but complete, sound programs have not been developed and carried out in most school systems.

There is a great need for the adaptive program in our educational system, when one out of every eight students' attending school has some type of disability. It is essential that the program be a combined effort of the school, the home, the physician, and the physical education instructor.

Each year the entire student body should be required to have a physical examination to determine classifications of activities in the physical education program.

To implement a successful adaptive physical education program, the instructor should have graduate work in the area of adaptive physical education. The apparatus that is needed to carry out an adaptive program is not as important as the modification of the existing equipment to fit the needs of the individual.

The point in organizing and conducting the adaptive physical education class is to keep in mind the complete benefits and welfare of the student. Probably the most important factors that the instructor has to cope with in the whole adaptive physical education program are the mental and emotional attitudes of the student.

The emotional attitudes the student has toward his disability seem almost insurmountable in a large per cent of the cases, so if the instructor can develop the proper attitude the individual is well on his way to a successful adjustment.

To integrate the handicapped student and the non-handicapped student in a modified sports program will do more to help the handicapped student to gain confidence, social acceptance, and a sense of accomplishment than to isolate him in a special class.

If the premise that America's educational system should serve the needs of all students is accepted, then it is essential that an adaptive physical education program be developed in our schools.