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THE SUGGESTED ACTIVITIES
FOR USE IN THE
DEVELOPMENT OF A CURRICULUM GUIDE
FOR THE EDUCABLE MENTALLY RETARDED
AT THE PRIMARY, INTERMEDIATE, AND SECONDARY LEVELS

A Thesis
Presented to
the Graduate Faculty
Central Washington State College

In Partial Fulfillment
of the Requirements for the Degree
Master of Education

by
James D. Sayah
July, 1967

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APPROVED FOR THE GRADUATE FACULTY

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CHAPTER I

INTRODUCTION

Interest in providing adequate education for the educable mentally retarded has increased in the past few years. Also in the past few years, educators have realized that physical education for the educable mentally retarded is a necessity. The mentally retarded children in physical education programs can develop dexterity, coordination and manual manipulation which will be helpful to them in vocational areas. Many of them will be employed in industries where they will be using their hands (49:11).

According to Kephart, physical education becomes a part of reading and the too frequent dichotomy between muscular or motor activities and intellectual activities becomes untenable (28:65).

Jan Schnobrich, a remedial English teacher with a minor in physical education, enrolled a group of "low academic achievers" in Saturday physical education classes. They crawled and skipped, and walked on balance beams to improve coordination. By the end of the school year, most of the students in her remedial class had gained from six months to a year in reading and writing skills (34:86).

The writer believes that educators and administrators are beginning to realize the importance of physical

education in aiding the development and physical well-being of the child; consequently, many have highly skilled instructors providing the leadership and direction for their physical education programs.

Recently there have been more articles appearing in the journals and new inroads in physical education for the retarded appear to be likely. A program called the Project for Recreation and Fitness has been initiated with a three-year grant of \$250,000 from the Joseph P. Kennedy, Jr., Foundation (14:3).

One of the first needs, said Project Director Robert L. Holland, was to find where programs already existed. By early 1966, clinics and workshops were to be scheduled at sites where comprehensive and creative programs might be viewed by participants.

I. THE PROBLEM

Statement of the problem. It is the purpose of this study to suggest activities for use in a curriculum guide for the educable mentally retarded in physical education at the primary, intermediate, and secondary levels.

Method of investigation. The writer will examine literature in the field of physical education programs for the educable mentally retarded and also locate and contact key persons in connection with physical education programs.

Letters will be written to authorities and agencies for more information to add greater depth to the study. The writer's four years' teaching experience in the area of physical education for the educable mentally retarded and prior research done with the retarded will aid in the presentation and provide additional information. The research done by the writer was A Study of Physical Education Programs for the Educable Mentally Retarded in the Greater Seattle Area (44).

Importance of the study. Since there is limited information of a textbook nature in the area of physical education programs for the educable mentally retarded, a curriculum guide in physical education would provide knowledge to help the teachers do a better job in meeting the needs of the child. A better physical education program will aid in the development of motor ability, fitness, sociability, and recreational skills. One of the aims in educating the mentally retarded is to help them function in a normal society. If learning motor skills renders them less conspicuous in the eyes of the public, it will enhance their potential for acceptance. When the mentally retarded becomes an adult, he will be employed in jobs of unskilled and semi-skilled labor. Therefore, it is indispensable that he improve his motor skills to minimum occupational adequacy. If this is done, the mentally

retarded individual may become more readily a self-sufficient, law-abiding citizen, and an asset to the community.

II. DEFINITIONS OF TERMS USED

Educable mentally retarded. The educable mentally retarded child is one who, because of inadequate mental development, is unable to profit to any large degree from the programs of the regular schools, but who has these potentialities for development: (1) minimum educability in reading, writing, spelling, arithmetic, and so forth; (2) capacity for social adjustment to a point where he can get along independently in the community; and (3) minimum occupational adequacy such that he can later support himself partially or totally at a marginal level. The term educability, then, refers to minimum educability in the academic, social and occupational areas (29:82).

Therapy. Therapy is the medical word for treatment (1:583).

Therapist. A therapist is a person trained to give therapy (treatment) by physical means (heat, light, water, massage and exercises) or by teaching the patient to use his muscles in performing occupational exercises incidental to the making of some object or performing some useful service (1:583). The therapist is certified by the state

board of physical therapists.

Physical education program. The physical education program is made up of movement experiences based upon the needs, problems, and interests of the boys and girls in a democratic society. The program would include activities that would develop physical fitness, motor abilities, social characteristics, body mechanics and recreational and sports skills. The person who supervises the physical education program must understand the purposes of this program and the experiences through which these purposes can be achieved (54:156).

III. OVERVIEW

Chapter II of this study presents the literature and research concerning physical education programs for the educable mentally retarded.

Chapter III of this thesis will include the equipment in a physical education program for the retarded, facilities, budget, and training of the instructor.

In Chapter IV the suggested activities for the curriculum guide will be developed. The guide will include the philosophy, objectives, and a program of activities at the primary, intermediate, and secondary levels.

Chapter V contains the summary, and recommendations.

CHAPTER II

REVIEW OF THE LITERATURE ON RESEARCH AND PROGRAMS

This chapter reviews the literature on research for the educable mentally retarded as well as describing the past physical education programs for the retarded.

I. Review of the Literature on Research

The writer reviewed what was considered basic literature relative to the relationship of learning to physical education of the educable mentally retarded and also located key references in connection with physical education programs. Letters were written to authorities and agencies for additional information beyond the scope of the survey.

Delacato found that improved physical coordination aids learning. Delacato's theory claimed many children with reading difficulties had disorganized neurological systems. According to this theory, such children may not have had normal opportunities (as infants) to crawl, climb and explore. Others might have been urged to walk before ready. As a result, coordination did not develop normally. Delacato found that when the child learned the basic motor skills correctly and in the proper sequence, there was improved performance in reading ability (8:104-105).

The studies that have been conducted with the least severely retarded or "educable" group (I. Q.'s 50 to 80) have been descriptive rather than experimental. Most of the material was reviewed by Stein in 1963 in Rehabilitation Literature (51:230).

The experiments that have been published show very encouraging results. There is evidence not only that the physical fitness and motor ability of the retarded can be improved but that these changes may be accompanied by increases in I. Q., social maturity, learning ability, and low-skilled work capacity (51:241-242).

Dramatic results were reported in a study involving institutionalized mentally retarded boys 12 to 15 years of age in England (Oliver, 1956, 1957, 1958). All academic subjects except arithmetic and English were replaced for a ten-week period in the experimental group by activities of a physical nature; daily periods of physical education, individual remedial exercises, strengthening activities, and recreative team games. During the same period the control group followed its normal schedule, including only two periods of physical education per week, and daily organized games after school. The experimental group improved significantly in all measures of athletic achievement, physical fitness, and strength. There were also measurable and significant changes in emotional stability,

medical evaluation, and personality adjustment, and there were significant increases in I.Q. of 25 per cent of the experimental group. No significant improvements in I.Q. were reported among the control group (36:155; 37:31-22; 38:31-32).

In 1965 this basic research design was duplicated in Nashville, Tennessee, by Corder. A training group received a daily one-hour period of planned physical education lessons which progressively presented more difficult and challenging activities to the public school special education subjects. After four weeks (20 days), the training group showed significant gain scores over the control group on the full and verbal scales of the Wechsler Intelligence Scale for Children. Progressive and systematic programs of physical education of only 20 days' duration thus enhanced the intellectual development of educable mentally retarded boys (7:357). Some gain might be due to the extra attention given the experimental group.

Even severely retarded boys and girls showed significant improvements in muscular fitness and endurance through participation in a program involving intensive muscular activity of the shoulders and stressing the development of organic fitness (20:42-45). A wide variety of physical activities which proved stimulating and beneficial were adapted for use with severely retarded subjects.

II. Literature on Physical Education Programs for the Retarded

The writer found a limited amount of information in journals, periodicals, and books in connection with physical education programs for the educable mentally retarded.

Objectives of the physical education program. The aim of the adapted physical education program is to help the student achieve optimum physical, mental and social growth through a carefully planned program of selected activities. To accomplish it, these objectives are set forth:

1. Develop optimum physical fitness.
2. Develop skills in the basic motor movement.
3. Develop a variety of sport skills for participation in sports as a worth leisure time activity.
4. Develop a desire for continuous physical improvement.
5. Promote an understanding in the student of the nature of the handicap and its limitations while emphasizing the potentialities which may be developed.
6. Give the student a feeling of value and worth as an individual regardless of his handicap (10:45).

Beck found considerable agreement among educators regarding the objectives of a physical education program. In this same study, he also found little agreement on the

means for meeting those objectives (3:117).

Characteristics of the educable mentally retarded.

In determining activities for the class, attention is paid to the special characteristics of the mentally handicapped. Not all mentally retarded exhibit all these characteristics, and those who possess them do not do so in the same degree, but the following are traits found in significantly greater numbers among mentally handicapped than among the non-handicapped. In a class of mentally retarded youths, just as in any regular physical education class, there will be individuals of greatly varying physical, emotional, and social abilities and disabilities (50:30).

Among the characteristics of the mentally retarded with which the physical educator must be particularly concerned are these: (1) Physical - poor body mechanics, low vitality, and poor motor coordination; (2) Mental - lack of ability to concentrate and to retain, difficulty in following directions, tendency to lose interest in remote goals, greater response to the concrete and practical than to the abstract and theoretical, varying interest span, lack of understanding of team play, lack of initiative, and inability to experiment and innovate with activities; (3) Emotional - general lack of stability and adjustment, lack of stability when too much is expected, impatience, aggressive behavior to cover a weakness, the wish to attract attention and to

relieve tensions, low levels of self-confidence and self-direction, and unpredictable in reaction to evaluation; and (4) Social - immaturity, eagerness for approval of the teacher and participation as an individual within a group. It should be noted that the rate of growth is slower and the peak of development is reached sooner by the retarded than by the non-handicapped (50:31).

The qualifications of teachers. A study done recently has concluded that personal qualities needed for the successful special education teacher are emotional stability, considerateness, flexibility, patience, forcefulness, objectivity, scholarliness, buoyancy, dependability, judgment, personal magnetism, physical energy and drive, originality, cooperativeness, expressiveness, mental alertness, and ethicalness (43:16).

Six qualifications listed in the study were more important to the special education teachers. These qualifications are: buoyancy, considerateness, emotional stability, flexibility, originality, and patience (43:17).

Perhaps the most important attribute the teacher of the educable mentally retarded students can possess is emotional maturity. Emotional maturity is the ability to solve problems and adjust to the circumstances without undue emotional involvement (11:43).

Patience and a sense of humor are indispensable qualities in any good teacher. Those who work with the educable mentally retarded need to be endowed with a generous portion of each, for progress is more often than not very, very slow. When the results of long hours do manifest themselves, however, they are extremely rewarding to the student and to the teacher. A good imagination is another desirable quality in the teacher of those who deviate from the norm, for it may be necessary for him to improvise equipment as well as techniques for performing skills. When facilities and equipment for the teaching of adapted activities are limited, the imaginative teacher adjusts and modifies the available facilities and equipment to fit the requirements of his program (11:43-44).

Organizational ability is essential in the good physical education teacher. Carefully planned class procedures and well organized class activities are time and energy savers. They make achievements of the desired goal easier and more certain. Class instruction left entirely, or even partially, to chance results in wasted time and motion, in poor learning, and in poor teaching (11:44).

Strong leadership is more important in teaching adapted physical education than good equipment, a fine gymnasium, or any contributing factor. A good teacher of adapted physical education has great enthusiasm for

teaching physical education to all, regardless of their capabilities in the performances of physical skills. He is convinced of the contributions he can make to the lives of the mentally retarded and has developed numerous methods and techniques to implement his program. He has acquired the gift of insight; he knows when a technique is applicable and he is willing and able to adjust his methods to meet the specific needs of the moment (11:44).

In regard to the qualifications which a teacher should have to instruct adapted activities, it should be said that the background subject areas are essentially the same as those for physical education. A thorough knowledge of sport and recreational game skills is very important, as is sound understanding of the nature of the human body and its response to exercise (11:44).

In addition to knowledge pertaining to physical education generally, the teacher should acquire some specific information about the causes, nature and psychological implications of the various disabilities of the mentally retarded. It is necessary to understand the effects of exercise upon these conditions and how sports and games may be utilized to improve the social and emotional as well as the physical well-being of the mentally retarded individual. The teacher must have a basic knowledge of first aid for the treatment of minor injuries and, most particularly, the first

aid practices that are applicable to certain handicaps such as first aid measures to be administered to an epileptic in a seizure, or a diabetic in insulin shock (11:44-45).

The activities in the physical education program.

Retarded children are weaker, tire more easily, and are 35 per cent fatter than normal children according to Hayden, who was directing a nation-wide, three-year project to provide physical training for the mentally retarded under the Joseph P. Kennedy Foundation and the American Association for Health, Physical Education and Recreation (19:1).

The value of physical education for the educable mentally retarded children has probably never been seriously questioned (46:248).

The physical education period is a very important part of the day for the educable mentally retarded children. According to Neely,

it is a time to relax and a time to exercise; it is a time to look and a time to listen: it is a time to learn the new and practice the old; it is a time for fun, but also of work (35:39).

A minimum of physical education for eight through eleven-year-old children should include supervised activities, games, rhythmic, self-testing activities, aquatics, relays, formal exercise, and student choice of activity (49:12).

A junior high physical education program in East Peoria, Illinois, for the educable mentally retarded is

designed to improve the coordination of a child so that he may be able to participate in the regular physical education classes. The emphasis is on skill development on a gradually increasing scale of difficulty from the primary grades through junior high - in walking, hopping, throwing for distance and accuracy, bounce catching, catching and throwing a softball and dribbling (40:8).

The educable mentally retarded children attending the Keene School in Washington, D. C., learned tumbling activities after school. The school did not have a gymnasium or a full-time physical education instructor so the classroom teacher obtained permission to organize pupils in the intermediate class into a tumbling team. The teacher hoped that by doing this there would be an improvement in their health and strength and also to help individuals be successful, thereby offsetting some of the effects of economic and social deprivation which was thought largely responsible for their inability to perform successfully in school (39:20).

The girls and boys rehearsed for forty-five minutes at a time on different days. The team has performed in the auditorium with the entire student body and faculty as audience, in the lunchroom during the P.T.A. Book Fair, and at other schools. After several months, the children had shown considerable growth and had benefitted physically, emotionally, and socially. Best of all, the enthusiasm of

the children for this type of program became very infectious (39:136-138).

The following are some of the activities of the educable mentally retarded in the Wakefield High School in Arlington, Virginia. The activities included in the high school program were: (1) gymnastics such as tumbling, side horse, trampoline, balance beam and parallel bars; (2) individual and dual games - archery, shuffleboard, tether ball, fundamentals of golf and tennis, modified handball and bowling, croquet, horseshoes; (3) games and relays - cage ball, kick ball; (4) team sports - fundamentals, relays, and lead-up games in basketball, volleyball, touch football, softball, and newcomb. Body mechanics and recreational activities were integrated with other phases of the program where feasible with special emphasis on body mechanics on an individual basis for posture correction and improvement where needed. Emphasis was placed upon physical fitness. Activities were specifically designed to meet the fitness needs of the individuals in the class. Weight training and monthly physical fitness testing were integral facets of the total physical education program (50:31).

CHAPTER III

EQUIPMENT, FACILITIES, BUDGET, AND TRAINING OF INSTRUCTOR

This chapter will include the equipment in a physical education program for the educable mentally retarded, facilities, budget, and training of the instructor.

I. Equipment for a Physical Education Program

It is necessary to clarify the difference between equipment and facilities. Facilities would be permanent and include, for example, a gym or multi-purpose room. Equipment would be expendable and include balance beams, climbing ropes, and parallel bars.

The following is equipment that should be available in a physical education program for the retarded: mats, lower baskets for basketball, jungle gyms, balance beams, climbing ropes, parallel bars, pulley-weights, mirrors, outdoor playground equipment, tether balls, slides, and swings. Also, there should be lowered horizontal bars, inclined boards, postural wheels, side horse, vaulting box, spring board - carefully supervised, and trampoline - carefully supervised.

Other equipment should include chairs, benches, logs, tires, climbing equipment, play walls, sand pit, and record player.

Other equipment would include the following: jump ropes, play balls, hoops, wands, softballs, bats, volleyballs, footballs, soccer balls, kitten balls, medicine ball, and badminton supplies. This is not an all-inclusive list.

There should be a wide variety of equipment and supplies which will provide variety, interest and a wide range of experiences. There should be equipment such as plastic balls and bats for the educable mentally retarded which would lessen injury. There should be rubber matting under playground equipment as a safety measure.

II. Facilities for the Retarded

The following are the facilities needed for the educable mentally retarded in the physical education program: gym; adapted physical education room with special equipment for development of body mechanics; auxiliary room; and swimming instruction facilities either at the school or the use of a public one close by.

Outdoor play areas are needed for circle games, and basketball, volleyball and badminton.

Camping facilities should be available in the district where retarded youngsters may have opportunities to hike and learn about nature. There should be both day and overnight camping and it should be available during winter and summer.

Some experimentation should be carried out in adapting facilities for use with the mentally retarded. Efforts should be made to create new designs for both indoor and outdoor facilities: playfields, gymnasium or auxiliary playrooms, swimming pools, and camp sites (23:10).

III. Budget

The budget for physical education at our school was one dollar per pupil. Our school had two hundred and twenty students and received a yearly sum of two hundred and twenty dollars.

As a minimum for program assistance for the retarded, it should have comparable financial assistance to that of the normal child. It is desirable, though, that the physical education program for the retarded have greater financial assistance than that for the normal child. The retarded needs special equipment and facilities and this costs more money.

IV. Training of the Instructor

The minimal training for an instructor in physical education for the retarded would be Bachelor in Education with a major in health and physical education and a minor in special education.

The training desirable would be the above requirements plus a course in adaptive physical education - this course is designed to provide activities that meet physical education, recreational, and corrective needs of the individual.

CHAPTER IV

CURRICULUM GUIDE

AT THE PRIMARY, INTERMEDIATE

AND SECONDARY LEVELS

This chapter will include the curriculum guide. The guide will include the philosophy, objectives, and a program of activities at the primary, intermediate, and secondary levels.

The philosophy of the curriculum guide in physical education is to accept the mentally retarded individual as a member of society and develop his ability as far as possible within the framework of the class.

I. The Primary Level

In physical education the educable mentally retarded are separated from other children. The primary group includes boys and girls from age five to nine. The objectives in the physical education program for this group are as follows: (1) develop fitness; (2) develop motor abilities, coordination, eye-hand and eye-foot; (3) develop skills; (4) correction of posture; (5) develop social adaptability; (6) develop ability to follow directions; (7) develop mental alertness; (8) stimulate interest in sports; and (9) provide opportunities in activities for the release of

tension.

The following are activities in the primary program: (1) calisthenics; (2) rhythmic - basic locomotor skills, singing games and imitations; (3) self-testing activities such as stunts, balance beam, tumbling, rope climbing and rope skipping; (4) beginning ball skills; (5) low organized games; (6) marching; (7) aquatics; (8) body mechanics; (9) lead-up games for sports; and (10) track skills. Other activities could be included.

At the primary level the teacher associates the activity with the equipment and skill. If the activity was beginning ball skills, associate the skill catching with the equipment which is the ball. Also more free play is provided at the primary level.

Calisthenics is an important part of the program for the mentally retarded. Emphasis is placed upon each student doing the exercise as well as possible. At this phase the correct form is sought; yet the teacher must make allowances for students who may have handicaps. Calisthenics serves the purpose of warming up, but it is also used to develop various parts of the body. In short, exercises are used primarily for the development of fitness. This is very important since research has shown many students are low in fitness and the writer has seen dramatic improvement in fitness as a result of a good exercise program.

Some of the exercises that the writer has used are as follows: (1) toe-touch, (2) windmill, (3) push-ups, (4) torso twist, (5) propellor, (6) leg lifts and (7) side-straddle hop. These exercises can be found in Youth Physical Fitness by the President's Council on Youth Fitness (58).

Rhythms, such as singing games and dances, develop muscular coordination. There is a freer flow of movement in which the child's whole body can respond mentally, physically, and emotionally in an atmosphere provided for such response. In general, mentally retarded children are able to respond to rhythm. It is difficult for them to remember rules, so words of a song provide them with an excellent aid in carrying out directions.

In the beginning of the rhythmic program, the children learn the locomotor skills such as running, hopping, skipping and walking. Then they learn the non-locomotor skills such as twisting and turning; rising and falling; pushing and pulling, and swinging and swaying.

At the primary level, the students do interpretive movement to music. Singing games are a part of the program and the youngsters enjoy doing Shoo Fly, Riggidy Jig, and Four in the Boat. There is also the learning of simplified formations of squares such as circle left, circle right, right elbow swing and left elbow swing. Some of the rounds

that are enjoyed by this group are the Shoemaker Dance and the Clap Dance. The book Rhythmic Activities for the Primary Grades by the Seattle Public Schools is an excellent book for rhythmic activities (57).

Self-testing activities cover a number of activities. Rope skipping is a favorite play activity of mentally retarded children - for boys and girls alike. For the successful child there is much satisfaction, and many have learned by trying. Some children, lacking proper muscular coordination, cannot jump, but find a place of importance by turning the rope.

Some of the steps that can be done at primary level are two-foot basic step and alternate-foot basic. When the child learns these two steps, he can start jumping, using a long rope with two turners. All jumping should be with music for it provides another rhythm exercise to supplement dancing activities. Two good sources for rope skipping are Rope Skipping Fundamentals by Paul Smith and Physical Education in Small Schools by Elsa Schneider (48;45).

Rope climbing can be started at the primary level. The boys and girls should be taught proper form such as how to move up the rope and how to come down. Children should not be allowed to go above ten feet in the air. The teacher should not let children who are subject to

seizures do this activity.

Some of the balance beam activities are as follows: (1) walk forward; (2) backward; (3) walk with bean bag on head; (4) walk to the end of beam, do a knee bend, and turn around and come back; and (5) walk to middle of beam, do front scale, turn around and come back. A source that is used by the writer is For the Happiness of Children by Donna Plato (41).

Prior to starting a tumbling program, the younger boys and girls should have experiences with the fundamental stunts. The following are stunts that are used with the retarded: (1) crab walk, (2) lame dog walk, (3) seal walk, (4) kangaroo hop, (5) coffee grinder, (6) thread the needle, (7) turk stand, (8) Chinese get-up, and (9) wheelbarrow.

After the boys and girls have learned these stunts along with the other basic ones, a tumbling program can be started. Those boys and girls who have head injuries should not participate in the tumbling. The activities in tumbling at this level should be rolls such as the log roll, shoulder roll and forward roll. Two excellent books on stunts and tumbling are Physical Education for Children by Halsey and Porter and Stunts and Tumbling by Horne (17; 24).

The next activity that is important at the primary

level is beginning ball skills. In this part of the program, the children should be taught how to catch and to throw. Progress will be slow and much review work is necessary. Also, large balls should be used for a longer time than with normal children.

Children with visual problems or with poor coordination should move at their own rate. It may be necessary to use playground balls for catching until a child gains confidence. Plastic balls and kitten balls, which are larger than softballs, should be used if necessary.

One of the most enjoyable parts of the physical education program for the retarded is the games. Because of his short attention span, it is necessary to change games when interest wanes. It is important to calm the child down when he gets too excited, as some children are hyperactive as a result of the game. Some of the games enjoyed by the retarded are as follows: (1) Pom Pom, Pull-Away; (2) Squirrel in the Trees; (3) Hill Dill; (4) Midnight; (5) Duck, Duck Goose; (6) Bear in the Pit; (7) Shadow Tag; (8) Red Rover; and (9) Steal the Bacon.

Marching is an activity the children enjoy. Captains are chosen, and two columns are formed. As the music is played, the two columns advance to the end of the gym, divide, and march single file in opposite direc-

tions around the gym until they meet for double formation to advance down center again. Many different formations patterns are used as children march single file, by two's, and by four's vertically, horizontally, and diagonally across the gym. Four abreast is seldom used as it is difficult for the mentally retarded child to maintain this on his own. The captains usually march to orders called out by the teachers. They enjoy the challenge of leading their columns correctly and trying to keep in step with the music. The marching columns also enjoy the responsibility of keeping their lines in order.

Swimming is an activity that is enjoyed by the retarded child. Each instructor works with three to five youngsters. The children who are timid are encouraged to participate and their sensitivity to water is respected by all. Much of the activity at this level is in the shallow end for most of the children are non-swimmers. Suggested activity at this level is playing games such as Ring Around the Rosy, Simple Tag, and Waterball Tag (15:31).

Body mechanics includes the development of good posture as well as correctional exercises for those who deviate from the normal. Individual exercise programs will have to be established by the teacher.

Lead-up games in soccer, softball, and basketball will be played to develop some of the sports skills. For example,

Long Base and Stick Ball are lead-up games for softball which are popular at this age level.

Track skills, especially running, are developed at this time. Emphasis is placed upon how to start and the proper form in running to a given spot. Some high jumping is also done as well as broad jumping.

II. The Intermediate Level

The intermediate group includes boys and girls from ages 10 to 14. The objectives in the physical education program for this group are as follows: (1) develop fitness; (2) develop motor abilities - coordination, eye-hand and eye-foot; (3) develop recreational abilities for leisure-time activity; (4) develop skills; (5) correction of posture; (6) develop mental alertness; (7) play games for enjoyment; (8) stimulate interest in sports; and (9) provide opportunities in activities for release of tension.

Other objectives in the intermediate level that are different than in the primary level are as follows:

(1) develop skills to a finer degree; (2) develop more difficult skills, variations and go into them with greater depth; and (3) develop skill in team sports as a leisure-time activity.

The following are activities in the intermediate

program: (1) calisthenics; (2) rhythmic - locomotor and non-locomotor skills, singing games and imitations; (3) square dancing; (4) self-testing activities such as balance beam, rope skipping, rope climbing, stunts and tumbling; (5) ball skills; (6) low organized games and relays; (7) marching; (8) sports skills lead-up; (9) individual and team games (modified); (10) aquatics; (11) body mechanics; (12) recreational games; and (13) track and field (modified). There are other activities that might be included.

Physical education for the educable mentally retarded children at all levels is a program based upon progression of skills and activities. At the intermediate level stress is on the development of skills to a finer degree; hence, the student can perform more difficult skills and this leads into the participation of individual and team games. Less time is spent on remedial work than in the primary level and less modification of equipment is needed. There will be some youngsters though who need extra assistance in physical education not only at the intermediate level but at the secondary level as well.

The exercises used in the intermediate program are the same ones used in the primary program (refer to primary section). Also in the intermediate program, additional exercises used are pull-ups, more emphasis on push-ups, and

the development of strength as well as greater importance placed on endurance.

The rhythmic program at this level reviews the locomotor and non-locomotor skills learned at the primary level. The singing games learned at the primary level are still enjoyed and are successful at the intermediate level and include Four in a Boat, Shoo Fly, and Riggidy Jig.

The squares that are done are as follows: Birdie in the Cage and Swing Your Girl. The mixers that are successful with this group are Pancake Polka, La Raspa, Irish Washerwoman, and Bingo. The reels that are enjoyed by this group are Reel 'em Down, Ginny Crack Corn, Bow Belinda, Virginia Reel, and Rosa-Beck-A-Lina.

The self-testing activities at the intermediate level differ in degree with that in the primary program. The balance beam activities used in the primary level are reviewed as is done in the other self-testing areas. At this level, the children can bounce a ball while walking the beams and do various locomotor skills such as running, skipping, and hopping. Some children also do various types of balances and these would include the front scale, balance seat, and knee scale.

The rope skipping activities are expanded. The boys enjoy speed jumping for endurance and the girls enjoy learning many different steps and partner activities. The steps learned at the intermediate level are as follows:

swing step, forward; swing step, sideward; rocker step; toe touch forward; and shuffle step. In the primary section, the author has listed references which aid in the development of an effective rope skipping program.

Rope climbing at this level is more refined. The child has learned to climb up to a ten-foot height and has developed proper form. The teacher tries to develop an increasing awareness of proper form in going up and going down the rope. The children are allowed to go to the top of a twenty-foot rope if capable of doing it.

A program of stunts and tumbling is stressed at this level. The stunts are reviewed from the primary level and expanded. The tumbling skills developed besides the rolls are the stands such as the tripod, head stand, and elbow stand. Partner skills are emphasized and would include horizontal stand, knee to shoulder stand, balance seat, and thigh stand. Other skills developed at this level are mule kick, cartwheel, and handstand.

The ball skills would involve the throwing and catching skills that are a part of the team games or sports skills. Children having difficulty in this skill would use the large balls for catching and throwing. Kitten balls, plastic equipment, and playground balls would be used as an aid for the children needing remedial help. Also, lead-up games would be used as an incentive and stimulus to en-

courage the children having problems.

The low organized games enjoyed by the intermediate group are as follows: (1) Broom Hockey, (2) Steal the Bacon, (3) Street and Alleys, (4) Bear in the Pit, (5) Hill Dill, (6) Cowboy Tag, and (7) Pom Pom, Pull-Away.

The marching done at the intermediate level is augmented by terms such as about face; to the rear, march; and left column, march. These concepts are incorporated into the program and the marching program is somewhat more advanced from that at the primary level. A good reference book on marching is Fundamental Drill Team and Marching Instruction. (32).

Sports skills lead-up are used to aid in developing interest, providing enjoyment and developing skill in team games. The following are some of the lead-up games used at the intermediate level: (1) Line soccer, (2) Soccer dodgeball, (3) Long base, (4) Kick ball, (5) Over and under, (6) Capture the football, (7) Guard ball, and (8) Line basketball. A reference book which has been used by the author is Lead-up Games to Team Sports (5).

Individual and team games at the intermediate level have to be modified according to the abilities of the children. Rules or equipment need to be altered sometimes to make the activity more meaningful and enjoyable. For

example, if the class needed remedial work prior to starting softball, then Long Base would be played. Only the important rules would be included in the game; and a minimum of time spent discussing them since the retarded have a short attention span. The equipment would include a plastic ball and bats. The modified equipment would give the child more confidence in playing the game and lessen injury in case someone was hit by a bat. The teacher should stress a few important skills in order that the child can remember and apply them in the game. Other modifications will be found in the primary section. Individual and team games used at this level are as follows: (1) badminton; (2) golf - modified, balls plastic and holes shortened; (3) softball; (4) soccer; (5) football; and (6) basketball.

Aquatics at the intermediate level involves having free play in the water where the child has an opportunity to find out his limitations. The child can play games and suggested activities are found in Diversified Games and Activities of Low Organization for Mentally Retarded Children. The youngster should master the following swimming skills; (1) floating - front and back; (2) learning to swim underwater; (3) learning simple forward strokes; and (4) learning to jump in the water (15).

Body mechanics are important and are a carry-over from what was done at the primary level. The body mechanics

which need improvement are explained to the pupil as are the adjustments and adaptations of activities which are necessary. The student should be given a clear idea of the improvement which might be expected. The exercise program is then planned with the student, the special education teacher and other pertinent personnel who have data on the child and this is based upon his special needs and interests.

The recreational games enjoyed by this group are shuffleboard, ping-pong, bingo and bowling. Since the school does not have the facilities for bowling, the children must use a public facility near the school once a week.

Track and field is another popular activity for the intermediate boys and girls. The children review the fundamentals of the start, proper form in running, passing a baton, and the development of many other techniques in track and field. The activities are as follows: (1) running sprints - 30-yard dash, 50-yard dash, 75-yard dash, 200-yard relay and 300-yard relay; (2) broad jump; (3) high jump; and (4) hurdles.

III. The Secondary Level

The secondary group includes boys and girls from ages 15 to 18. The objectives in the physical education program for this group are as follows: (1) develop fitness; (2) develop motor abilities - coordination of eye-

hand and eye-foot; (3) develop recreational abilities; (4) develop skills; (5) correction of posture; (6) develop mental alertness; (7) play games for enjoyment; (8) stimulate interest in sports; and (9) provide opportunities in activities for the release of tension.

The following are additional objectives which are different from the other levels: (1) develop enjoyment and appreciation for watching spectator sports, and (2) develop proper attitudes toward physical education and fitness which will help them carry out a systematic program of activity as an adult.

The following are activities in the secondary program: (1) calisthenics; (2) square dance and modern dance; (3) self-testing activities - gymnastics such as tumbling, side horse, rope climbing, and trampoline (carefully supervised); (4) ball skills; (5) low organized games and relays; (6) individual and dual sports; (7) team sports; (8) recreational games; (9) aquatics; (10) body mechanics; (11) track and field; and (12) weight lifting. This is not an all inclusive list of activities; hence, others might be included.

At the secondary level the student is perfecting and refining the skills learned in earlier levels. The exercises used at the secondary level would include the basic exercises as listed previously. There would be a variety of exercises

beyond this. The exercises should have music background when it is possible. The children respond better to music, hence, the activity becomes more enjoyable. At this level, stress is given to exercises which develop endurance and strength for the boys. Exercises such as push-ups, pull-ups, leg lifts, sit-ups, as well as running activities, accomplish this objective. The girls' exercise program would be varied and be similar to that of the boys' but there wouldn't be as much emphasis on endurance and strength.

Square dancing and modern dance are valued activities at Woodside (the school the writer taught at for four years). Besides being a favorite, it is an excellent method of developing coordination through rhythmic movement. It challenges alertness and fast thinking for development of mental powers. It provides social and emotional satisfaction in something the children can do well together. These feelings of capability and achievement carry over into the classroom to make school fun and a pleasant experience.

The squares the children do at this level are as follows: The Grape Vine Twist, Pick Up Six, Buttons and Bows and Take That Lady Home.

The mixers enjoyed by this group include Glow Worm, Bingo, La Raspa and Pat-a-Cake-Polka.

The self-testing activities at the secondary level are merely an extension of the intermediate activities.

In tumbling, the boys and girls review the basic rolls, stands, and pyramids done previously. Afterward, the child advances at his own rate. For example, if the girls are capable of doing a cartwheel, they can then work as partners and do them together. Another possibility is the instructor can begin to teach the one-handed cartwheel. If the boy can walk on his hands, then he would learn the hand stand.

In the side horse, the student is oriented with the apparatus; then the instructor teaches him these simple vaults: front, squat, and straddle.

In rope climbing at this level, proper form is again stressed. If the child can climb to the top with feet and hands, the instructor can teach him to climb with hands only. The following are other activities that can be done with ropes: bicycling, reverse hand, and swinging. A good reference book is Physical Education for Children (17).

If the trampoline is used, it must be carefully supervised. When a child first tries the trampoline, the instructor holds his hands while he walks around or bounces gently up and down until he gets the feel of it and until he gains confidence in his ability to stay on and not fall off. A rule is that only one child at a time is allowed on the trampoline.

The following are trampoline sequences: (1) obey

the rules; (2) feel its different parts - walk around it, walk under it; (3) learn to mount and dismount; (4) roll from right to left, from side to side, front to back, and repeat; and (5) sit - different positions at many different places on the bed.

Ball skills are reviewed at the secondary level to correct any problems that the children have. Proper techniques are stressed for skills needed in various sports areas.

At this level, games used at the intermediate level can be utilized. Stress is with games which have a great deal of activity. Games such as Broom Hockey, Steal the Bacon and Bear in the Pit are successful with this age group. The following relays are used with this group: (1) running, (2) hopping, (3) skipping, and (4) animal walks.

The individual and dual sports that have been used by the author with this group is badminton, wrestling, and handball. In badminton, the instructor may need to modify the rules. Also, it is not necessary to play a game, for the children have enjoyment just hitting the birdie across the net.

In wrestling, the boy can be taught various holds and counters. Stress is not on technique, although it is not completely overlooked. Little competitive wrestling

is done, for the boys can get upset if stress is placed on wrestling on a competitive basis. A reference book used by the author is Successful Wrestling (26).

The team sports used with this group are soccer, football, basketball, volleyball, and softball. All these sports are used in the physical education classes. The girls participate in all the sports with the exception of football.

The recreational games enjoyed at this level are ping-pong, shuffleboard, and bowling. The bowling is done at a public facility.

The aquatic program at the secondary level should encourage the mastery of the basic strokes such as the side stroke, crawl, elementary back stroke, floating, and movement through the water with just the feet. When the child has mastered these strokes, there should be an opportunity for the student to learn various life-saving techniques. Also, the school should provide a competitive swimming program for the children with various schools.

For the older groups the body mechanics program would be left more to the individual's own responsibility. The specific exercises should be given to the individual and demonstrated. The use of special equipment such as mirrors, stall bars, weights, and wall pulleys should be demonstrated and explained. After this, the child works

on his individual program with continued guidance and supervision.

In the program for track and field at this level, the instructor reviews the fundamentals of track and field. The following areas are also covered: (1) low hurdles; (2) broad jump; (3) high jump; (4) shot put (8-pound); (5) sprints - 75-yard and 100-yard dash; and (6) relays such as 440 and 880-yard relays.

The weight program at the secondary level is carefully supervised. Some weight work is done for body mechanics for certain youngsters. Weight work is individually supervised for the student involved. Some of the exercises used are as follows: (1) curl, (2) half squat, (3) standing press, (4) forward trunk bend, and (5) heel raiser. A reference used by the author is Better Athletes Through Weight Training. (22).

CHAPTER V

SUMMARY AND RECOMMENDATIONS

I. Summary

The philosophy of physical education for the mentally retarded is to develop the individual's ability as far as possible within the framework of the class. The objectives in the retarded program are basically the same as in the normal program. The differences are as follows: (1) it takes more time for the retarded to learn a skill; (2) the expectations for the retarded aren't as great, and (3) the rules of the games and equipment must be modified.

The objectives in physical education for the retarded as proposed in the curriculum guide is similar at the primary, intermediate, and secondary levels. The following are the objectives in physical education:

- (1) develop fitness;
- (2) develop motor abilities - coordination, eye-hand and eye-foot;
- (3) develop skills;
- (4) correction of posture;
- (5) develop social adaptability;
- (6) develop ability to follow directions;
- (7) develop mental alertness;
- (8) stimulate interest in sports; and
- (9) provide opportunities in activities for the release of tension.

The activities at the primary level are as follows:

- (1) calisthenics;
- (2) rhythmic - basic locomotor skills,

singing games and imitations; (3) self-testing activities such as stunts, balance beam, tumbling, rope climbing and rope skipping; (4) beginning ball skills; (5) low organized games; (6) marching; (7) aquatics; (8) body mechanics; (9) lead-up games for sports; and (10) track skills.

The following are the activities suggested by the writer at the intermediate level: (1) calisthenics; (2) rhythmic - locomotor and non-locomotor skills, singing games and imitations; (3) square dancing; (4) self-testing activities such as balance beam, rope skipping, rope climbing, stunts and tumbling; (5) ball skills; (6) low organized games and relays; (7) marching; (8) sports skills lead-up; (9) individual and team games (modified); (10) aquatics; (11) body mechanics; (12) recreational games; and (13) track and field (modified).

The following are activities suggested at the secondary level: (1) calisthenics; (2) square dancing and modern dance; (3) self-testing activities - gymnastics such as tumbling, side horse, rope climbing, and trampoline (carefully supervised); (4) ball skills; (5) low organized games and relays; (6) individual and dual sports; (7) team sports; (8) recreational games; (9) aquatics; (10) body mechanics; (11) track and field; and (12) weight lifting.

II. Recommendations

The following are some of the recommendations suggested

in connection with physical education programs for the educable mentally retarded:

1. It is recommended that districts do more research in physical education for the retarded since there was limited information in this area. For example, there needs to be developed better evaluating devices such as fitness and motor skill tests for the educable mentally retarded.

2. It is recommended that districts improve their facilities. There should be more experimentation in adapting facilities for use with the mentally retarded. Efforts should be made to create new designs for both indoor and outdoor facilities, playgrounds, gymnasiums or auxiliary playrooms, outside play areas, swimming pools and camp sites.

3. It is recommended that a specialist be available in the district to assist the classroom teacher in planning and developing a more effective physical education program for the educable mentally retarded.

4. It is recommended that more districts develop a curriculum guide in physical education. This would assist the special education teacher to do a more effective job in physical education.

5. It is recommended that greater use be made of community resources - Y.M.C.A. pool and bowling alleys.

6. It is recommended that there be a more coordinated attempt among districts with more help from state and

federal levels to provide an adequate and more effective program for the educable mentally retarded.

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