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The Level of Physical Fitness Among Selected Learners of the SPED Center at EM'S Signal Village Elementary School: Input to an Individualized Educational Plan (IEP) S.Y. 2012-2013

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Abstract
This study determined the level of physical fitness among Selected Learners of the SPED Center in EM'S Signal Village Elementary School. This study will serve as the basis in the formulation of an Individualized Educational Plan for Special Learners.
Specifically, the following problems were answered:

1. What is the demographic profile of the respondents in terms of;
   a. Chronological age
   b. Mental Age
   c. Sex
   d. Type of Learner
2. What is the level of physical fitness of the respondents in terms of;
   a. Speed
   b. Muscular Strength
   c. Flexibility
   d. Reaction time
   e. Balance
   f. Coordination
3. What sports activities are engaged in by the respondents?
4. What is the effect of these sports activities on the learning interests of the respondents?
5. What program could be recommended to help improve the various areas of development of the respondents?

Based on the presentation, analysis and interpretation of data, the summary of the findings are as follows:

1. Majority of the respondents have Intellectual Disability. The special learners were not included in regular class and given special program to improve the emotional, social, mental, physical and spiritual aspect. There were 16 boys and 14 girls included in the study.

The Physical Fitness test has a significant contribution on the physical development of the respondents. There were only 6 Physical Fitness Test conducted and special children are capable of performing.

Conclusion: Based on the findings of the study arrived at the following conclusions:

1. The performance level of the respondents in the different physical fitness test range from low to high with predominant of low performance level in almost area.
2. In the Physical Fitness Test, it utilizes different test to measure the speed, coordination, balance, muscle strength, flexibility and reaction time that helped student's improved their physical well being.
3. The respondents showed low performance in almost 5 Physical Fitness Test.

Recommendations: Based on the findings and conclusions of the study, the following recommendations are hereby proposed:

1. Fitness should be an essential part of both academic and domestic programs for individuals with special needs. The idea is not to raise a generation of athletes; rather, it's to develop fundamental movements that have a direct impact on daily skills, aspects of independent living, self-efficacy and self-esteem.
2. A plan of Activities which would include more conditioning exercise, gymnastic activities, outdoor games and dances be formulated and implemented by Sped Teachers to improve the performance level of special learners in the Philippine Physical Fitness Test.
3. The physical fitness test where the special learners found weak like in Push Up, Stork Balance Test, Curl up, Stick Drop Test, 40 M Sprint will be strengthened by conducting continuous activities that will improve their level of physical fitness performance. Such activities includes jogging, running, jumping, bending, etc. to ensure the leg power and endurance, speed, flexibility and balance.
4. Information dissemination to parents regarding their child's physical fitness status be initiated during parents-teachers association (PTA) meeting and encourage them to indulge their children in any sport wherein that he/she's interested and performing well.
5. Training in the Proper administration and interpretation of the Philippine Physical Fitness Test and in the use of the teacher's manual in Physical Education be conducted among Special Education Teachers.
6. More facilities and equipment such as accurately measured running track, stopwatch, mat, and others be provided.
7. Similar Studies be conducted in all special children in different Sped Centers of Taguig City and in other division where these children are enrolled.

Keywords: SPED Center, Parents-Teachers Association (PTA), Motor Activities Training Program (MATP)

1. The Problem and its Setting

Introduction

A good physical well being is a prime objective of Philippine Education because it is believed that the full potential of a citizen can be attained only if the individual is physically, mentally and socially sound. The former DECS Secretary Ricardo T. Gloria (1994) once challenged all students, teachers, school, administrators and personnel in the school system to maintain a desirable

level of health and fitness that would enable them to participate actively, meaningfully and productively in all the developmental efforts of the family, community, government and country as contained in his letter to the BPESS during the formulation of the Revised Philippine Physical Fitness Test Manual.

Improvement of the quality of life of the Filipino People is a developmental theme of the Philippines 2000, a National thrust enunciated by the former President Fidel V. Ramos. This developmental objective will be pursued through people empowerment, particularly in the physical aspects that ensures a healthy mind and a physically fit body for every Filipino.

Long before the advent of sports with better materials and equipment used, people were very essential to their life. The primordial job of the physical education teachers is the development of skills and meaningful satisfying movements in the limitless school activities of children. The child must be developed mentally, socially, and physically and should have a good foundation for a wise leisure time. In order to aid the pupils in their to aid the pupils in their total and well balanced growth towards maturity, education is very much concerned with the provision of opportunities in which they develop motor skills. It is expected that through physical education basic motor skills could be developed preparatory to such development though is the physical preparedness or physical fitness of the pupils. In the same vein, Fianza (1993) said that physical education must play an increasingly more important role in the development of a physically fit individual. Health and physical education provides exceptional students with opportunities to enhance their understanding of personal capabilities, challenges and potential. Appropriate modifications can enhance their motor skills, motivate them to participate, improve their feelings of self worth and provide them with physical and therapeutic benefits. Participation in health and physical education also provide exceptional students with a unique opportunity to develop skills knowledge and attitudes that promote lifelong, healthy active living.

Children with developmental disabilities are those whose major category of impairment includes, cognitive, motor and central processing (Winnick, 2000). According to the record of World Health Organization (1994): approximately 156 Million or 3 % of the World population have Mental Retardation. Prevalence by continent: In Africa there were 20,310,000, In Australia there were 5,025,000, In Asia there were 97, 710,000, In Latin America there were 13,800,00 and in North America 8,610,000. It cuts across the line of racial, ethnic educational, social and economic background. It can occur in any family one out of ten American families is directly affected by Mental Retardation. Nearly 613, 000 children ages 6-21 have some level of mental retardation and need special education in school (Twenty-Fourth Annual Report to Congress, U.S. Department of Education, 2002).

Based on the nationwide studies conducted by the Special Education Division of the Bureau of Elementary Education, 12 % from any given population of children and young adults have special needs, 2 % of whom are gifted (fast learners or children who manifest superior intelligence beyond the chronological age. While the remaining 10 % from those with impairments and disabilities. (http://www.deped.gov.ph).

In the Philippines during the school year 2002-2003 there are 14 % from this figure are children with mental retardation (Educator, Magazine, 2004). This implies that in the population of children with disabilities, more than 1/8 are mentally retarded and the rest are afflicted with other disabilities.

The need to increase their vitality, social maturity, motor coordination, body mechanics and their ability to concentrate is very evident. In short, they need to improve their physical fitness. Poor eye-hand coordination for instance is typical of these youngsters. Posture is usually poor and their physical vitality is low. A shuffling, inefficient walking gait is representative of the general poorly coordinated body movements. Moreover, some mild mentally deficient children are subject to excessive and useless movements, while others are subject to diminished mobility or muscular asthma. Their abilities to see, hear and speak and their sensory perception are less than those of normal children. They are less able than normal children in many ways, however, they deviate less in motor ability than otherwise. Eichstaedt and Kalakian (1992), concurs with this contention.

Generally, special children cannot acquire the high degree of skill of normal individuals but they acquire sufficient skills to participate in different types of muscular activities to increase their physical fitness and improve their body mechanics. Aside from the physical benefits that they would get from physical activities they would also have opportunities for social development and emotional growth.

Public Law 94-142 (1977), states that sports and intramural are part of the special education services for children with mild mental retardation, the orthopedically impaired, the seriously emotionally disturbed, the visual and hearing impaired, the deaf-blind, other health impaired, the speech impaired and other handicap condition, Specifically, the law states:

> "No otherwise qualified individual shall solely by reason of his Handicap be excluded from participation in, be denied the benefits of, or be subjected to discrimination under this program or activity receiving federal financial assistance". (Section 504)

What does this imply? Schools that conduct inter-scholastic athletics and extra-class activities must provide qualified handicapped students equal opportunities with the non – handicapped for participation. Such opportunities must be given in the least restrictive environment.

Further, part B of Public Law 94-142 also requires that physical education be made available to every handicapped child who is receiving a free appropriate public education. The child must participate either in the regular physical education program or, if necessary, in a specially designed physical education program. According to Hastad and Lacy (1998), many students with mild and moderate mental retardation are mainstreamed or integrated into regular physical education. These students will generally be able to perform most test items used with their non-disabled peers. Such physical education programs must be designed to meet the specific motor needs of handicapped individuals.

In the same section physical education is defined as:

> The development of physical and motor fitness, Fundamental motor skill and patterns and skills in aquatics, Dance, individual and group games and sports including Intramural and lifetime sports. (Section 504)

In the Philippines the curriculum content for the special children include among others social-behavioral/social competence such as self awareness, peer relationship, personal interaction, manners, recreational skills to include dancing, dramatics, music, sports and sex education. Also such competencies give emphasis to the development of self actualization, vocational, economic, general and specific skills as communication skills, numeracy skills, aesthetic skills and motor skills. These are the same skills developed among non handicapped children which contributes to the physical well-being as well as the social development and emotional growth of mild mentally retarded individuals who are often taken for granted. Thus, this research study was conducted to prove or disprove that children with disabilities could be able to become physically fit and develop self-confidence, self-worth and develop his personality.

Background of the Study

It was common for children to spend the hours after school and into dusk playing in parks, backyards and other local terrain. Without becoming too nostalgic that children are not engaging in the same amount of physical activity as they were a generation ago, we are beginning to witness the problems that result from childhood inactivity. Lack of exercise has a significant impact on children's development and optimal functioning, causing health issues such as diabetes and obesity and hampering cognitive abilities. Basically, when children develop good movement habits, much as effective study habits and social skills, they are primed for overall wellness and success. The researcher formulated and introduced a program that will allow the special learners to participate in physical acitivities.

For the past four years, the people behind the SPED Center they are continuously providing all the help it could give and the best service to the children. The teachers, parents and concerned organizations are hoping that in spite of the children's disabilities, we can look forward to a good future for them.

They commit themselves to provide children with special needs with holistic education necessary to face the complexities of life and provide a full range of programs and services necessary for the better acquisition of skills and behavior needed by children in order to prepare them for life ahead.

Conceptual Framework

One should understand fully the concept of physical fitness and health to be able to grasp the health fitness connection. To aid the students in understanding the physical fitness health connection, the benefits of being fit according to Johnson (1992) are Vigor and Vitality, Good Posture, Relief of low back pain, control the weight, slows down ageing process, Neuromuscular skill development, ability to relax, strong resistance to stress, Improve personality, and mental fitness.

Physical Fitness is the ability of the body to adapt to and recover from strenuous exercise. This implies a general well being of the body and a capacity for vigorous work. It is one's ability to work and play with vigor and pleasure without undue fatigue and with sufficient energy lift for meeting unforeseen emergencies. It has the following components.

Among males for example, muscle strength increases rapidly from the ages 12 to 19 at a proportionate to the increase in weight of the body. The growth in strength of the females parallels the growth of strength in males excerpt that the growth spurt starts at about 9 years of age. There are indications that the emotional state of the individual, during exercise and the attachment of the muscle to its lever and the extent to which it is stretched affect the strength of the muscle.

Being able to do and continue physical activity for a long period of time is called cardio-respiratory endurance. It is the ability of the heart, lungs and vascular system to function efficiently at moderate to high intensity over extended period of time. It is the capacity of the body to postpone the onset of fatigue and persist in a given strenuous task involving total body movement.

Speed of body movement depends upon speed of muscular contraction. Contraction of a muscle depends on the energy liberated during certain chemical reactions in the muscles. The rate of the liberation of energy limits speed of muscular contraction. The speed of contraction is influenced by the nature of the molecules of the muscle and malnutrition and practice of a specific muscular movement.

Flexibility maybe extent or dynamic. The former is the range of movement possible in any given joint, while the latter is the ability to make repeated, rapid, flexing movement. The bone structure determines the range of movement in a joint. The ligaments and muscles like the bone structure limit the range of movement. Performance effectiveness in many physical activities is influenced by the degree of flexibility of the total body or of specific joints. It is believed that a more flexible person expands less energy in performing other skills than one who has less flexibility because energy need not be expended to overcome the limited range of motion.

To maintain body balance with the eyes closed is called gross body equilibrium. The maintaining of body balance with the eyes open is known as balance. There are two varieties of each kind of balance: static and dynamic. The former is the ability to maintain balance while stationary while the latter is the ability to do so while moving. Good

balance is essential in the satisfactory performance of almost all movement required by everyday life and by all sports skills.

Changing direction with speed is called Agility while Coordination is the process by which the muscles are used correctly to perform a specific movement. It involves the ability to integrate several different factors and different kinds of movements into one single effective pattern. It further involves the lower centers of the brain as well as the highest center. In the process of learning a skill one needs to be aware of the required movement. The highest level of the brain is therefore involved. Sufficient practice relegates to the lower level of the brain the integration of all the muscles to produce a specific action. A basketball player for instance, may have learned dribbling the ball so well that in the process of dribbling in for a lay-up shot in a game situation he is not consciously aware of all the muscular movement necessary for performance of the dribbling but it is concentrating on other aspects of the game. Practice exercises improve poor muscular coordination. Different movements involve different patterns of muscular movement. One maybe well coordinated in one skill but poorly coordinated in another skill.

A person who is below the normal range in strength cannot perform the regular skills of his work and play because he is too weak. A tennis player who has sub-strength for example cannot hold the racket with the regulation grip but must choke up on the handle because he is too weak to control the racket.

Less than normal endurance manifests itself in the inability to carry a normal work load or to participate in normal play without undue fatigue. Lack of endurance is one of the causes of lack of interest in vigorous activities. It likewise hinders other areas of endeavor, as evidenced by lack of accomplishment in academic subjects and failure to utilize opportunities to develop social skills. On the other hand, lack of normal speed and power hinders the performance of specific types of movements such as running, jumping and throwing. Further, without sufficient flexibility, the range of movement is limited which maybe disadvantages when an activity requires a wide range of movement.

Studies have shown that students who have low scores on tests that measure factors of physical fitness have more social adjustment problems than those who have high scores. The reason for this is due to the fact that lack of physical skills has caused these children to withdraw from play and sport activities, thus, depriving them of certain types of social contacts which are valuable for social development. Such withdrawal has a further disadvantage because it fosters further decrease in physical fitness. It should be noted, however, that lack of exercise is only one cause of low physical defects or disorders, faulty nutrition, poor health practices, psychological weakness and inherited factors should be considered.

Research Paradigm

Drawn from the conceptual framework, the Standardized Physical Fitness Test was used. The conceptual scheme model which outlines the research process undertaken is shown in Fig 1. The respondent's profile is the first step in preparing the individualized educational plan. The respondent's history, parent and teacher's observation will help determine the kind of individualized educational plan to be formulate.

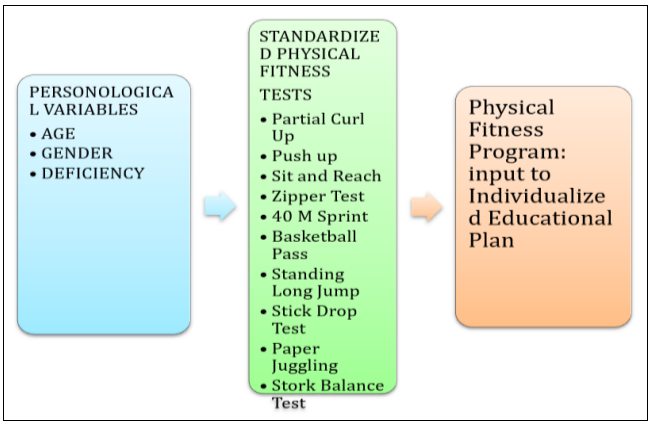

Fig 1

Statement of the Problem

This study was conceived to assess the Level of Physical Fitness among Special Learners of the Sped Center at EM'S Signal Village Elementary School in various self-testing activities with the end view of improving their physical fitness which is a contributing factor to their social and emotional development. The findings of the study served as an input to their Individualized Educational Plan.

Specifically, the following problems were answered:

1. What is the demographic profile of the respondents in terms of;
   a. Chronological age
   b. Mental Age
   c. Sex
   d. Type of Learner
2. What is the level of physical fitness of the respondents in terms of;
   a. Speed
   b. Muscular Strength
   c. Flexibility
   d. Reaction time
   e. Balance
   f. Coordination
3. What sports activities are engaged in by the respondents?
4. What is the effect of these sports activities on the learning interests of the respondents?
5. What program could be recommended to help improve the various areas of development of the respondents?

Scope and Limitation of the Study

This study was limited to the assessment of Special Learners in the Sped Center of EM'S Signal Village Elementary School.

The process will focus on the components of physical fitness namely Muscular Strength and endurance, Cardio-respiratory endurance, flexibility, balance, speed, coordination, power, agility and reaction time with their corresponding tests.

There were 30 respondents in the study limited the conclusiveness of this research. However, this said limitation did not offset the significant contribution of the research as a possible support to future researches.

Significance of the Study

This study is significant to the following among others:

Pupil: May increase her physical fitness, develop mentally, emotionally and socially.

Parents: May encourage and empower their child, the results of the study would make them aware of their child's physical fitness level. Such awareness maybe used as bases for providing related activities at home to further increase their physical fitness. These activities may even encourage more interaction among members of the family, thus, enhancing their harmonious relationship.
Administrators: May use the Individualized Educational Plan that will benefit the pupils with special needs and hopefully support to use the programs by coordinating with the teachers, parents, therapists, Developmental Doctors and other individuals involve in the education of this type of student.
Special Education Teachers: Can help to develop appropriate Individualized Education Plan that will address the uniqueness of the students with Mental Retardation as learners.
Regular Classroom Teacher: This study could help them understand fully why and how children with special needs can be integrated in the regular class.
Future Researchers: Will make use of the findings, conclusion and recommendations obtained in the study and may be serve as a starting point for similar researches on the same area of special education teachers.

Definition of Terms
The following terms were used in the study are defined conceptually and operationally.
Activity an action or movement or something done for pleasure. Specifically, in this study it refers to physical education activities.
Agility ability to move and change direction very quickly.
Autism is a highly variable neurodevelopment disorder that first appears during infancy or childhood, and generally follows a steady course without remission.
Balance ability of a person to remain stable even when moving.
Body Mass Index in a world where excess weight in children (and adults!) is becoming a bigger problem, it is important to monitor body fat levels. The body mass index takes into account the child's height, and is therefore better than just using body weight.
Cardio-respiratory Endurance ability to do and continue physical activity for a long period of time, it is the ability of the heart, lungs and vascular system to function efficiently at moderate to high intensity over an extended period of time.
Case Study a comprehensive study of a social unit – be that a person, a social institution, a group, a district or community.
Coordination the linking of the senses such as sight and hearing through the brain to parts of the body to produce smooth, quick and efficiently controlled movement.
Flexibility the ability of the muscles to move joints with ease through the normal range of motion, the ability to perform a wide range of motions easily and without strain injury.
Fitness a general condition of the respondent who is continuously developing to his full potential as human being, physically, socially, mentally and emotionally.
Health Status a state in which a person is free, not suffering from any illness and is feeling well.
Individualized Educational Plan a systematic, purposive and developmental educational programming of curricular and instructional priorities and contents designed to meet a child's special needs and aimed at ensuring mastery of learning of target skills and behaviors.
Learning disability is when a person has significant learning problems in an academic area.
Mental Retardation a child may be mentally retarded of the following three conditions are present:
1. Existing mal-adaptive behavior- He is dependent and socially unable to adjust to the standard norms of the society.
2. Sub-average intellectual functioning – the intelligence quotient (IQ) academic skills score of the individual is 70-75 or below as measured by intelligence test.
3. During the development period these two conditions should occur. They manifest before age 18.
Multiple disabilities. means concomitant impairments (such as mental retardation blindness, mental retardation-orthopedic impairment, etc.), the combination of which causes such severe educational needs that they cannot be accommodated in special education programs solely for one of the impairments.
Muscular Strength the ability of the muscles to produce results or a person's ability to exert force.
Physical Fitness individual has a capacity to perform daily tasks with alertness and vigor.
Physical Fitness Test battery of tests which aims at measuring the fitness level of every pupils fitness level subjected to this study.
Power ability of a person to release maximum force very quickly, it is a combination of speed and strength.
PPFT it is the acronym of the Philippine Physical Fitness Test. The battery of test formulated by Dr. Aparicio Mequi, the Director of BPESS.
Reaction Time the amount of time it takes to make a physical response once you see the need to take an action.
Speed ability of a person to perform a movement to cover a distance in a short period of time.

2. Review of Related Literature and Studies
The related literature and studies which consisted of the characteristics of children with mild mental retardation physical fitness, the importance of physical fitness exercises, physical fitness testing, physical fitness program development, and communicating and relating in a physical education setting, guided the researcher in the conceptualization of this study, the analysis as well as in the interpretation of result.

Related Literature
Foreign
Riordom (1990), contends that rhythmic is a natural part of children's lives. They move with music to the beat of simple instrument or to the rhythm of the hand clapping.
While according to Eichstaedt and Kalakian (1992), Mild mentally retarded persons are capable of achieving both significant non-physical and motor proficiency results. Further, they contended that in the non-physical realm. Self esteem may improve markedly as proficiencies are developed which are important to the child and others. Physical education facilitates the socialization process by providing opportunities for give and take in group centered settings. The inherently motivating nature of motor activities should stimulate achievement in conversation and in the three R's.

Hollis (1992), further stipulates that children with mild mental retardation need to improve their physical fitness and body mechanics, Poor-eye hand coordination is common among them. A shuffling, inefficient walking gait is representative of the generally poorly coordinated body movements. Further observations made are poor posture and low vitality.

Hollis (1992), children with mild mental retardation need opportunities for successful participation in group play. Although these children cannot acquire a high degree of skill like normal players, they can, however acquire sufficient skills to participate in enough different types of muscular activities to increase their physical fitness and improve their body mechanics. Moreover, there exists many opportunities for social development and psychological growth. They may excel in rhythmic and dance activities.

Carl & Leonard (1997), states that exercise is an essential component in the physical care of children with mild mental retardation. He further states that physical fitness exercises can be helpful in the following ways.

Deborah A.W. (1999), contends that aside from physical needs, children with mild mental retardation have certain basic social needs which physical education and sport programs can help address. Such social needs are feeling of belonging, recognition, self respect and love. Thus, physical education programs help in the development of physical fitness and social aspect of individuals.

According to Hollis (1999), among the common characteristics of these children with mild mental retardation are lack of ability to concentrate, difficulty in following directions, poor motor coordination, poor body mechanics, low vitality and social immaturity. Their abilities to see, hear and speak, and other sensory perceptions are less than those of normal children. Although they achieve lower level of physical and motor proficiency than the normal child, they deviate less in motor ability. Children with mild mental retardation exhibit certain common characteristics similar to those of typically developing children. They vary in the extent to which they demonstrate characteristic behavior and abilities.

Special Olympics is an international organization that changes lives by promoting understanding, acceptance and inclusion between people with and without intellectual disabilities. Through year-round sports training and athletic competition and other related programming for nearly 3.5 million children and adults with intellectual disabilities in more than 170 countries, Special Olympics has created a model community that celebrates people's diverse gifts. Founded in 1968 by Eunice Kennedy Shriver, Special Olympics provides people with intellectual disabilities continuing opportunities to realize their potential, develop physical fitness, demonstrate courage and experience joy and friendship. Special Olympics serves nearly 3.5 million persons with intellectual disabilities in 226 Programs in more than 170 countries. To provide year-round sports training and athletic competition in a variety of Olympic-type sports for children and adults with intellectual disabilities, giving them continuing opportunities to develop physical fitness, demonstrate courage, experience joy and participate in a sharing of gifts, skills and friendship with their families, other Special Olympics athletes and the community. Children and adults with intellectual disabilities who participate in Special Olympics develop improved physical fitness and motor skills, greater self-confidence and a more positive self-image. They grow mentally, socially and spiritually and, through their activities, exhibit boundless courage and enthusiasm, enjoy the rewards of friendship and ultimately discover not only new abilities and talents but "their voices" as well. Timothy Shriver serves as Chairman of the Board. Special Olympics guides local, area, state/provincial and national Programs around the world. A volunteer Board of Directors determines international policies and is composed of business and sport leaders, professional athletes, educators and experts in intellectual disability from around the world. To be eligible to participate in Special Olympics, you must be at least 8 years old and identified by an agency or professional as having one of the following conditions: intellectual disabilities, cognitive delays as measured by formal assessment, or significant learning or vocational problems due to cognitive delay that require or have required specially designed instruction. The Special Olympics Young Athletes™ program was created for children with intellectual disabilities ages 2 through 7. Through Special Olympics Motor Activities Training Program (MATP), developed by physical educators, physical therapists and recreation therapists. MATP emphasizes training and participation rather than competition. The Special Olympics World Summer Games are held every four years. The 2007 World Summer Games were held in Shanghai, China, on 2-11 October; the 2011 World Summer Games were held in Athens, Greece, on 25 June - 4 July. The Special Olympics World Winter Games also are held every four years. The 2005 World Winter Games were held in Nagano, Japan, on 26 February-5 March. The 2009 World Winter Games were held in Boise, Idaho (USA), on 7-13 February. The first Special Olympics World Games were held in Chicago, Illinois USA, in 1968.

"**Sports play a critical role** in the health and development of all children, including those with disabilities. " Hon. Ann Veneman, Executive Director, UNICEF.

Special Olympics
Young Athletes
Young Athletes Background

Special Olympics Board Objectives:

- Recruit new young athletes for participation in developmentally appropriate activities;
- Implement at least 12 pilot Programs;
- Recruit at least 1,000 new young athletes;
- Recruit at least 1,000 new family members;
- Conduct at least 12 Young Athletes Family Day or Demonstration Events; and
- Study Young Athletes with emphasis on formative and summative approaches evaluating impact on the athlete, family and the community.

The Young Athletes Program

- Young Athletes is a sports play program fo children ages 2 ½ through 7.
- Engages children with intellectual disabilities through developmentally appropriate play activities designed to foster physical, cognitive,and social development;
- Welcomes family members of children with intellectual disabilities to the Special Olympics network of support;
- Raises awareness about the abilities of children with intellectual disabilities through inclusive peer participation, demonstrations and other events.

The Young Athletes Program

Developing Skills for Success as a Future Special Olympics Athlete:

- Foundational skills
- Walking and running
- Balancing and jumping
- Trapping and catching
- Throwing
- Striking
- Kicking
- Advanced skills

8 The Young Athletes Program

- Young Athletes can be implemented in several ways:
  - Individual families
  - Schools
  - Preschools
  - P.E. Classes
  - Etc.

Young Athletes Status

- Implemented in public schools (75%)
- Part of existing school programs (75%)
- 30 minutes, 1-2 times a week (63%)
- Typical program size: 3-9 children with 1-4 adults
- Lead by special education teachers, APE teachers, therapist, Special Olympics coaches.

Young Athletes Status
Improvements Noted In:

- Motor Skill Development (75%)
- Cognitive Skill Development (71%)
- Social Emotional Skill Development (65%)
- Adaptive Skill Development (69%)
- Communication Skill Development (62%)

Young Athletes Status

- "I have found a common ground – a place where my son and I can connect – through sports."
- "(Young Athletes program) provided opportunities to communicate with other parents about needs of other kids with disabilities. Connecting and sharing information is really a huge benefit…it gives you an opportunity to talk to someone that can relate to what it is like to have a child with disabilities."
- "After learning to step on the blocks, I noticed he could walk up the stairs out in the community."

The Future of Young Athletes

- Grow
- Develop
- Integrate
- Communicate
- Evaluate

The Future of Young Athletes
Growth – Strengthen and
Expand Young Athletes

- Recruit next generation of Special Olympics athletes and Unified Partners
- Enhance Young Athlete resources
- Target expansion via Mattel Grants in all 7 Regions
- Explore and develop resources and channels to reach youngest athletes (birth - 2) and their families.

The Future of Young Athletes
Resource Development – Identify and Cultivate new funding avenues

- Explore opportunities with foundations, governments, corporations and individual donors.
- Market Young Athletes events as opportunities to introduce Special Olympics to new sources of support.

Integration – Position Young Athletes as a starting point for Special
Olympics experience:

- Family Support and Activation
- Sports/Unified Sports
- Healthy Athletes
- Youth Activation
- Athlete Leadership Programs

Communication

- Create Young Athletes online networking resource for families, teachers and program staff.
- Identify opportunities for partnership with media outlets (Disney, Sesame Street, etc.).
- Identify Global Celebrity Ambassadors for Young Athletes.
- Make Young Athletes resources (publications, videos, etc.) available online.

Research and Evaluation

- Recruit research partners in priority countries to support ongoing research efforts.
- Link data collection to Young Athletes Healthy Athletes screenings.
- Create opportunities to share innovative best practices and programmatic successes.

The Benefits of Physical Fitness for Special Needs Children

by Tulsa World of Gymnastics said that Sports, especially fundamental and movement education-based sports such as gymnastics, provide tremendous benefits for children with special needs. Physical education programs can considerably improve the lifestyle of a disabled child and are highly recommended. These programs may help control obesity, promote activeness, increase a child's self-image and social skills, and increase motivation. The physical activity along with support, rewards, and interaction can, among other benefits, be very helpful to these children and their families.

Physical Improvements - Children suffering from cognitive disabilities are most likely going to suffer from physical impairments as well. These children have substantial problems with motor skills in areas such as hopping, skipping, and jumping. Involvement in gymnastics can help these individuals develop fundamental motor and physical fitness skills.

Sensory Integration - Many autistic individuals have sensory problems, which can range from mild to severe. These problems involve either hypersensitivity or hyposensitivity to stimulation. Sensory integration focuses primarily on three senses -vestibular (i.e., motion, balance), tactile (i.e., touch), and proprioception (e.g., joints, ligaments). Many techniques are used to stimulate these senses in order to normalize them.

Sensory integration activities allow a person with autism to improve responses to certain stimuli. A therapist often recommends certain activities to assist with sensory processing problems. Examples of activities that may improve sensory processing are group sports activity, gymnastics, swinging or creating a sensory room.

Physical Therapy - Often children with autism have limited gross and fine motor skills, so physical therapy can be helpful. May also include sensory integration; vestibular (i.e., motion, balance), tactile (i.e., touch), and proprioception (e.g., joints, ligaments) Many techniques are used to stimulate these senses in order to normalize them. Activities with gymnastics movement, balance and strength can be very helpful when introduced at an early age. Tulsa World of Gymnastics is proud to offer special classes for both challenged children and young adults. We know from our years of experience that physical education programs can considerably improve the lifestyle of a disabled child. The physical activity along with support, rewards, and interaction can, among other benefits, be very helpful to these children and their families. For more information please contact Tulsa World of Gymnastics at 918.664.8683.

Children with disabilities face unique challenges, but in many instances they can still participate in physical activities. Use the sites below to **find** fitness information for children with special needs, **exercises, suggestions on** adapting activities for your child with special needs and emotional support.

According to Eric Chelsean, Physical Fitness is essential to Special Children.

Not too many years ago, it was common for children to spend the hours after school and into dusk playing in fields, parks, backyards and other local terrain. Without becoming too nostalgic that children are not engaging in the same amount of physical activity as they were a generation ago, we are beginning to witness the problems that result from childhood inactivity. Lack of exercise has a significant impact on children's development and optimal functioning, causing health issues such as diabetes and obesity and hampering cognitive abilities. Basically, when children develop good movement habits, much as effective study habits and social skills, they are primed for overall wellness and success.

Involvement in fitness and exercise is quite misunderstood. Parents are generally motivated to sign up their son or daughter for a particular sport, such as soccer or basketball, with the belief that it will help their child develop athletic skills and fitness. The problem: Sports are actually a culmination of many specific and highly specialized movement patterns. If the basic foundations of movement are not properly developed, it's difficult for a child to excel in a particular sport. Furthermore, such a child may be likely to get injured.

Sports are not dangerous. However, playing sports when the body is unprepared for such demands can yield problematic consequences. Simply because a child can move does not necessarily mean that he or she is moving optimally. I frequently compare physical development with progression in mathematics. You would not expect a kindergarten class to be capable of performing calculus equations. It is the equivalent scenario when we place young athletes on a soccer or football field. It comes down to developing prerequisite skills.

Young individuals with developmental disabilities, including autism spectrum disorder, PDD and ADHD, often exhibit deficits in gross motor movement, coordination and motor planning. The right types of physical activity can dramatically improve these issues. The immediate introduction of sports, however, when the most complicated movements are introduced first, only stifles progress and frustrates children and their parents.

Especially for children with special needs, the world of athletics can be frustrating and confusing. Rules and objectives in sports are complex, as is the often-daunting issue of social interaction. But, if we begin with a physical fitness program that addresses basic movement patterns, eventual participation in sports can be a reasonable goal.

As parents, be mindful of how general and adaptive physical education programs address fitness. Many education programs focus only on the development of specific game skills for various sports, or simply allow the child's class to choose an activity and play at will. This is a major factor in the decrease of participation in gym class. If students do not enjoy a sport, or any sport for that matter, it becomes difficult to convince them that fitness is a worthwhile endeavor. Allowing children to explore movement and athletics on their own is fine. But, again, we wouldn't expect to enter a math classroom with textbooks and calculators piled on the desks, along with instructions for the students to pick their favorite trigonometry problem, and simply watch as students unschooled in trig enjoyed the problem-solving opportunities.

According to Eric Chelsean, Physical Fitness is essential to Special Children.

Physical education requires an educational component, too. And yes, it should be fun as well.

What is an appropriate physical education curriculum and what does it need to address? The cool thing about physical education is that it can be taught as effectively in the home as in a school setting. For young children with developmental disabilities, the home is often an optimal setting— free of extraneous chaos, and good for both one-on-one attention and consistent reinforcement. When creating a physical fitness program, focus on the five basic movement patterns: pushing, pulling, rotation, level change and locomotion.

Pushing and pulling activities are pretty simple and can entail a variety of different equipment, such as body weight, light resistance bands and medicine balls. Pushing and pulling are essential activities for daily life skills. Rotating the trunk and being able to orient the body are important for daily movements and have applications for sports.

We perform level changing movements every single day. Picking up laundry or toys off the floor, getting in and out of the car, and ducking under a hurdle are all examples of level changing, occasionally known as "squatting."

Locomotion refers to any activity that relies on getting from point A to point B, or any other letter. Crawling, walking, sprinting, hopping and skipping are just a few of the many examples of locomotion.

Creating a simple, fun and effective exercise program for the home or classroom does not have to be an overwhelming challenge. When teaching exercises to young individuals with developmental disabilities, it helps to begin with the most basic of each type of movement and break down each component of the exercise into small, easy steps. For example, I might separate a pushup into five steps, beginning with laying prone, or stomach down, on the floor, and gradually developing each movement in the chain until the child is performing a complete pushup independent of any guidance or prompting. If exercise is a new or somewhat cumbersome activity, pair fitness programs with activities, items or sounds that reinforce the athlete. Music is a great companion to exercise, as are favorite toys or the opportunity to play with a preferred piece of exercise equipment, such as a stretchy band or soft medicine ball.

Fitness should be an essential part of both academic and domestic programs for individuals with special needs. The idea is not to raise a generation of athletes; rather, it's to develop fundamental movements that have a direct impact on daily skills, aspects of independent living, self-efficacy and self-esteem. When the entire family participates in exercise, fitness and health become more easily, and happily, attained goals. Exercise is something we do. Fitness is something we live.

Local

Physical Fitness as defined in DECS Memorandum No. 204, s. 1994 is the capacity of each individual to accomplish daily tasks with alertness and vigor. The definition implies that physical fitness is a personal matter and must be viewed within the context of an individual's daily life activities. People are different from one another. They differ in age, sex, body built, as well as their occupation and lifestyle.

The definition further states that a person is considered physically fit if he/she can perform his/her daily work efficiently and effectively with alertness and vigor. Although people differ from one another, they have the common responsibility to improve and maintain their physical fitness level. This can be done by having physical fitness activities such as running, walking, dancing, jumping rope, scrubbing floor among others. For the exercise to be effective one must follow some scientific principles which must be done at the right frequency, intensity and duration.

Physical fitness has basic components namely: cardio-respiratory endurance, muscular strength, flexibility, speed, power, coordination, balance, agility and reaction time.

In DECS Memorandum No. 204, s 1994, these basic physical fitness components are clearly defined Cardio-respiratory endurance refers to one's ability to do and continue physical activity for a long period of time. It is the ability of the heart, lungs and vascular system to function efficiently at moderate to high intensity over an extended period of time. It is the capacity of the body to postpone the onset of fatigue and persist in a given strenuous task involving total body movement.

Muscular strength is the ability of the muscles to produce results or a person's ability to exert force. Muscular strength becomes muscular endurance when the force is exerted repeatedly over a period of time. On the other hand, flexibility is the ability of the muscle to move joints with ease through the normal range of motion. It is the ability to perform a wide range of motions easily and without strain injury.

The other components are skill related, one of which is speed. Speed is the ability to perform a movement to cover a distance in a short period of time. Speed can refer to a total body speed as in running or swimming, or rate of movement of body parts, such as leg speed or arm speed. Another is power which is the ability to release maximum force very quickly. It is a combination of speed and strength. High jumpers, discuss throwers and sprinters all need to have power. Coordination is another thing. It is the linking of the senses such as sight and hearing through the brain to parts of the body to produce smooth, quick and efficiently controlled movement. Good coordination is necessary in all sports. Balance is another skill related component which is the ability to remain stable even when moving. Gymnasts and surfers must have a high level of balance. the next component is agility which is the ability to move and change direction very quickly. Wrestlers, foot ball players, gymnasts and fencers must all be agile. The last skill related component is reaction time. It is the amount of time it takes to make a physical response once you see the need to take an action. Good reaction time is needed in the starting

blocks, in fencing and karate.

The quality of whatever one does is related to physical fitness level. The higher the level on physical fitness the better is the performance of one's daily work. Even physical appearance and self confidence are improved.

To show the city's support to athletes with disabilities, the city of Marikina hosted the upcoming PhilSPADA National Games last Feb. 3-6 at the Marikina Sports Park. The national sports association for the Differently Abled (PhilSPADA) National Games is a tournament that consists of athletes with disabilities vying in various sports.

Mayor Del De Guzman said that, They are giving them these children opportunity to show their skills as well as to prove that they can also excel in their chosen sports (Philippine Star, January 2012).

According to Cheryl Arnan-Ligutom from Cebu, they continue to aim towards their objective to let the children develop physical fitness, demonstrate courage and experience joy and sharing. SPED children and disadvantaged women in the society, understanding their limitations and supporting their needs. It was the third SPED Olympics, aimed at harnessing love for life through sports despite physical limitations. The third Special Education (SPED) Olympics was participated in by six SPED public schools in Cebu City, namely, Zapatera, Barrio Luz, San Nicolas, Labangon, Bulacao and Don Vicente Rama SPED Center. (Cebu Daily News, August 2012).

Related Studies

Foreign

SSSKlahti, *et al* (1999), when they assess the link between physical activity and anthropometry of 105 boys and girls 3-4 years old. Findings revealed that physical activity and body size are associated with gender girls who play mostly indoors are heavier than the rest. Conversely, boys who play mostly outdoors are heavier than boys who play mostly indoors. The researcher aims to draw a similar comparison with the subjects of the study, comparing age, gender and disability.

Pitetti, *et al* (2001) [7], conducted a study comparing the aerobic fitness and BMI of 268 children and adolescents with mental retardation with 606 children and adolescents with out mental retardation. To measure aerobic fitness, a 20 meter shuttle run test is used while standardized scales are utilized to obtain, the height and weight. The testing procedure includes giving the subjects with mental retardation ample practice runs until a reasonably good display of running form and understanding of the task is exhibited. In addition to having a pacer who gives continual encouragement during the actual run. The following conclusions are derived from the said study. First, the subjects without mental retardation run greater laps and have higher aerobic fitness capacity than the subjects with mental retardation; second, the subjects with mental retardation have higher body mass indices than the subjects without mental retardation and lastly, the subjects with mental retardation have lower exercise and aerobic fitness capacities.

These studies have paved the way for further research. The researcher believes that such studies should be replicated in the Philippine setting so as to gather empirical data which can be used to set standards on body composition and anthropometry, exercise and fitness aptitude, in both regular and special population.

Necmiye Un Yildirim (2001), conduct a study entitled Mental Retardation and Physical Fitness, approximately, 87 percent of individuals with MR will be mildly affected and will be only a little slower than average in learning new information and skills. For those mildly affected, their MR in many times not readily apparent and may not be identified until their enter school. As adults, individuals with MR will be able to lead independent lives in the community. The remaining 13 percent of people with MR will be have serious functional limitations and require more support systems than individuals with mild MR. It is generally assumed that most children with MR are not engaged in regular physical activity and therefore, lack of activity contributes to poor cardiovascular fitness reported in the literature. However, little scientific proof is offered to substantiate this assumption in that there exists little objective data on physical activity patterns of individuals with MR. Some of the commonly cited causes of poor cardiovascular test results of person with MR were poor motivation and task. Muscle strength is fundamental for producing efficient movement for individuals without disabilities and individuals with MR. Muscle strength, especially lower body muscle, for with MR, is fundamental for overall health, for improving vocational productivity, and for gaining independence in activities of daily living. Cardiovascular fitness and endurance run performance are directly related to leg strength in children and adolescents with MR. In addition, level of physical activity are significantly associated with back strength in children and adolescent, with and withouth MR. Physical activity has been shown to positively affect physical functioning and to prevent functional limitations. Plausible mechanisms for this effect may involve reducing the incidence of cronic disease, the major cause of functional limitation, and maintaining the physiological capacity to enable normal functional performance. In addition, physical fitness has been found to be associated with a lower incidence or cardiovascular disease and mortality. It's not right only making a connection between mental retarded children's low fitness level and their limitd cognitive skills. The absence of appropriate physical education program for these children and the appropriate teaching tecniques and practices which can't done can be counted among the other important causes. One who works with mental retarded individuals should be informed about the mental retarded and fitness components. They should also learn special teaching tecniques and special motivation strategies. Determining their fitness levels and appropriate education program will be increase the mental retarded children's independence in daily living.

Lemura and Maziekas (2002), conduct a study about the changes in body mass in Obese Children and Adolescents following an exercise treatment are examined. The results show that exercise is effective for reducing body mass and percent (%) body fat for children and adolescents.

Similarly, Rowlands (2002), *et al*. explores the relationship between regular physical activity and body fatness in 50 Hong Kong Chinese boys and girls ages 8-11 years old. Using the sum of seven skinfold sizes and wearing a uniaxial accelerometer to assess body fatness and physical activity respectively results show that physical activity and body fatness correlate negatively in boys but not in girls.

Kidshealth (2004), studies show that children who engage in physical activity tend to stay active throughout their lives.

Folkins, Carlyle H *et al* (2010), Reviews theory and research that have attempted to relate fitness training to improvements on psychological variables among normals as well as selected clinical populations. Theoretical speculations in this area are critiqued, and research designs are evaluated as either experimental or quasi-experimental and therefore interpretable, or pre-experimental and therefore largely un-interpretable. The research suggests that physical fitness training leads to improved mood, self-concept, and work behavior; the evidence is less clear as to its effects on cognitive functioning, although it does appear to bolster cognitive performance during and after physical stress. Except for self-concept, personality traits are not affected by improvements in physical fitness. Mentally retarded children demonstrate psychological improvement following physical fitness training, but no conclusion can be reached regarding the effects of physical fitness training with other clinical syndromes.

Owens, Corder W. (2010), 8 retarded boys were given an intensive 20 day program of physical education. 8 retarded boys designated as "officials" met each day with the training group while 8 retarded boys served as controls. Pretest and posttest were given on the WISC, the Youth Fitness Test, and the Cowell Personal Distance Scale. The training group made significant IQ gain scores on the Full Scale and Verbal Scale over the control group. The training group made significant gain scores on the Youth Fitness Test over the officials and the control group, but there was no difference in social status.

John Lian *et al* (2005), conducted a study and found out that Children's physical activity (PA) has been studied extensively, but little information is available on those with disabilities. We sought to examine the PA of children with disabilities during physical education (PE) and recess while simultaneously documenting environmental conditions. Children accrued little moderate-to-vigorous physical activity (MVPA) during PE (7.8 min) and recess (8.9 min). Activity levels varied across disability types, with differences attributed to lesson context and teacher behavior. Children with physical disabilities were the least active during both PE and recess.

Berktas N. *et al* (2000), conduct a study entitiled the effects of inclusion class programmes on physical fitness for children with mental challenges. The purpose of this study was to compare the effects of inclusion education programmes with special education programmes on physical fitness levels of children with mental challenges. Participants were 69 elementary school students with mental challenges. Thirty-four children with a mean age of 12.3 ± 2.4 were included in an inclusion physical education programme with non-disabled peers. In addition, 35 children with a mean age of 12.1 ± 1.8 participated in a special class for children with mental challenges. Balance tests, grip strength and Brockport Physical Fitness Test (BPFT) were used to evaluate the physical fitness levels of children. Results indicated that physical fitness parameters; 20 metre shuttle run, push-up, trunk lift, vertical jump and balance test scores were significantly lower in children in the special class ($p < 0.05$). There were no significant differences in BMI, calf skinfold thickness, grip strength in dominant hand, sit and reach test and modified Apley test ($p > 0.05$). The physical fitness level was better in children with mental challenges who were participating in an inclusion programme with non-disabled peers. Therefore, it is recommended for children with mental challenges to be part of an inclusion programme with their non-disabled peers.

Christine Cadena (2008), made study about the importance of Parent involvement in the Physical Fitness of Special Chidlren.

Local

Huang, Kuang-Wei (James). (2001) [14], The study assesses the physical fitness of children with mental retardation in various self-testing activities. It, likewise, looked into the profile of children with mild mental retardation in terms of strength, power, flexibility, endurance, speed and agility on their physical fitness level. Based on these, a program to enhance their physical fitness was developed. It made use of the descriptive method and administered a standardized physical fitness test to children with mild mental retardation. The study revealed that majority of the children with mild mental retardation of P. Gomez Elementary School Division of City Schools, Manila were males and females and were physically healthy. Majority of the boy and girl respondents had low to very poor leg strength and power, abdominal and muscle strength, speed and coordination, strength and endurance of the muscles of the arms and shoulders, flexibility and cardio-respiratory endurance. Some of the girl and boy respondents had average leg strength and power, abdominal and muscles of the arms and shoulders, flexibility and cardio-respiratory endurance. With good health conditions and adequate physical education activities, the mild mentally retarded children can approximate the motor ability of their normal peers. A physical fitness program is proposed based from the outcomes of the study.

Villaranda, Estrella (2001) [12], conduct a study and evaluation of Physical fitness level of intermediate pupils in the Division of Legazpi City: it likewise drew the implication to the Physical Fitness Program on the basis of such an evaluation. According to her, the 10 year old pupils performed lower than that of the 14 and 15 years old pupils in most of the seven (7) items in the Physical Fitness Battery Test. When it comes to sexes, the boys of the same age level got higher scores than the girls in almost all the test items.

a. The boys possess higher capabilities and performance along skills related activities in almost all test items than the girls of the same age bracket.
b. The pupils in the older age brackets of fourteen (14) and fifteen (15) years old could perform better than the ten (10) years old pupils in the seven (7) events of the physical fitness test for the reason that the older pupils have already developed skills and psychomotor abilities by this stage, ahead of the younger pupils.
c. The pupils who were under height got low performance in their physical education subject.
d. The weight of pupils affected their grades in physical education specially the severe malnourished, moderate and malnourish pupils.
e. In this study, other factors that affected the previous ratings in physical education of the intermediate pupils were: poor physical fitness equipment/materials, absenteeism, not clear instruction on how the different tests in items in physical fitness be executed.

Demillo (1992), particularly conducted a study on the performance level of selected public elementary school pupils. She concluded that there were difficulities encountered on the teachers in the administration of physical

Fitness Tests in the three Divisions in the Bicol Region.

Another study on assessment was investigated by Cometa (1992) assessed the Philippine Fitness Training Program in Bacacay East District. She subjected the grades III to IV pupils school year 1991-1992. Her study showed "The profile of the Philippine Physical Fitness test, majority of the 9-12 years old pupils were strong in leg power, quite good abdominal muscles but weak in from strength and poor in flexibility.

Magbuhos (1991), shared a summary of her findings about the effects of Physical Fitness Program on the physical Fitness levels of students ages 9-14 in Puerto Galera District, Puerto Galera, Oriental Mindoro such as:

1. Increase in percentage were observed in the age groups of 9-11 years old in the standing long jump after the Physical Fitness program. The same was observed in the bent knee curl ups in the 9,10,11,12 and 13 age groups. Percentages were likewise in the chair push ups of the 9,10,11,13 and 14 age groups in sit and reach percentage increases were also observed among the 9 and 13 age groups.
2. Significant difference were observed in the 15 min. run scores of the children with ages 10,12,13 and 14 before and after the physical fitness program. No significant difference were observed in the 15 min. run scores of the children aged 9 and 11 years before and after the program.
3. In the standing long jump, significant differences were observed in their scores of the children in 10, 11,12 and 14 age group before and after the physical fitness program. No significant difference were observed in the standing long jump scores of the children who were 13 years old.
4. The children in the age groups of 9, 10 and 11 had higher bent knee curl ups scores after the physical fitness program. There were no significant difference in the bent knee curl ups of the children in the age groups of 12, 13 and 14 after the physical fitness prpgram.
5. The children in the age groups of 10, 11 and 13 years had higher scores in chair push up after the physical fitness program. Children in the age groups of 10, 12 and 14 did not increase their scores significantly after the physical fitness program.
6. On the other hand, significant differences were observed in the sit and reach scores of the children in all age groups after the experiment.

Garayna (1991), also studied the New Philippine Physical Fitness Test, its Validity, Reliability and Percentile Norm found out and disclosed that the percentile norm showed little difference across the ages. For the boys, the 50 percentile norm for eight (8) year old in sit up was 13 sit ups, for nine (9) year old, 12 sit up, for ten (10) year old 14 sit ups, eleven (11) year old 17 sit ups, for twelve (12) years old 20 sit ups, and for thirteen (13) year old 21 sit ups.

However, there are some pupils in the next higher age with substantially higher performance. This was usually seen among boys between the ages of 8 and 9. Like in the chair push ups, for 9 year old was 15 push ups, 10 years old was 17 push ups and 11 years old was 16 push ups. At this stage, boys are very active and execute the test with gusto.

It was the opposite however, among the girls especially aged 12 and 13 like in chair push up in 60th percentile norm for 8 years old was 16 push ups, for 9 years old was 13 push ups, for 10 year old was 14 push ups, for 11 year old was 13 push ups, for 12 years old was 12 push ups and 13 year old was 10 push ups. Some girls tend to behave like ladies and were ashamed to execute the test.

Synthesis

For children with mental or intellectual disabilities, there can be many challenges throughout the course of life. While there are psychological and cognitive health issues to be addressed, many children also experience physical impairment. It is important to remember that even with cognitive or psychological complications, there can be physical limitations that will affect the child's mobility and quality of life.

Physical fitness is strongly encouraged in our society today. Beginning in grade school, children are exposed to the structured environments of physical activity through physical education (PE) classes. For special needs children, especially those with psychological or cognitive impairment, the involvement in physical education classes must be well managed so as to ensure the prevention of adverse health outcomes.

In traditional physical education classes, the focus of the teacher, for non-disabled children, is to encourage physical movement for at least 20 minutes per day. While many children do not engage in this physical movement for 20 minutes, the goal of most schools is to achieve this level of fitness at least daily. In children with special needs, these same fitness criteria should be considered seriously and pursued as best as possible without impairing the child's physical health.

The special needs of a child is not obtaining the recommended physical activity three times per week, it will be important that other outlets for which the child to engage in fitness programs. By contacting local community organizations, there are programs that are designed to promote physical fitness in children with special needs and even consider utilizing your local park, simply engage in fitness programs at home. The key to a child's optimal health outcome will lie in the early awareness of physical education to the extent that the intellectually disabled child can understand and follow guidance as well as the guidance of the physical education teacher at school.

3. Research Methodology and Procedure

This chapter discussed the research process and procedure in detail. It includes the research methodology, sources of data, the instruments to be used, procedure in data gathering, collection and analysis of data.

Research Methodology

The current research used the case study method wherein an in depth study on the level of physical fitness among Special Learners of the SPED Center in EM'S Signal Village Elementary School was made. According to Manuel and Medel (1993), descriptive research describes what is. It involves the description, recording, analysis and interpretation of the present nature, composition or processes of phenomenon. The focus is on prevailing conditions, or how a person, group, or thing behaves or functions in the present. It often involves some type of comparison or contrast.

Research Locale

The SPED in EM'S Signal Village Elementary School

started on June 2007 through the supervision of Dr. Natividad Jimenez who was the principal at that time. The class began its humble beginning consisting of five children pupils with autism and intellectual disabilities. The pupils were allotted one hour each day under Ms. Anna T. Bilbao, their dedicated SPED Teacher. By that time, the SPED Center had only few educational tools and materials for the children. But that did not hinder them to continue in their advocacy. The SPED building has made possible through the benevolent donation from the late Senator Renato Cayetano. He was an instrument of God that gave hope to the needs and welfare of special children.

In 2008, the children increased into seventeen pupils. Little by little, the SPED Center was able to provide the needed facilities with the help of supportive parents. By the year 2009 up to the present, financial assistance flow Local Government Unit and other Non- Government Organizations. A group of UP Architect, 2009 PTA President, 2010 SPED PTA President generously extended their help to the organizations.

Ms. Anna T. Bilbao became a full time SPED Teacher under the supervision of Dr. Remedios A. Antonio, the current principal of the school. The special children surprisingly grew from 35 pupils in 2010-2011 and 2011-2012 it has a total of forty-three pupils. Now, the SPED Center is complete and has all educational and instructional materials it needed such as textbooks, visual pictures, display board, audio materials, television, video tape/ cassette players and computer. The room is also air-conditioned and has its own comfort room inside. It has improved a lot compared from previous years.

For the past four years, the people behind the SPED Center they are continuously providing all the help it could give and the best service to the children. The teachers, parents and concerned organizations are hoping that in spite of the children's disabilities, we can look forward to a good future for them.

They commit themselves to provide children with special needs with holistic education necessary to face the complexities of life and provide a full range of programs and services necessary for the better acquisition of skills and behavior needed by children in order to prepare them for life ahead.

Respondents

There were 30 respondents in the study, 7 boys identified with Autism with an age range of 10-14, 8 with Intellectual Disability with an age range of 10-15 and 1 with Multiple Disability with an age of 10 and 1 Learning Disability, a total of 16 boys and in girls there were 14 with Intellectual Disability with an age range of 12-21 and 1 with Multiple Disability with an age of 10, a total of 14 girls shown in Table 1.

Table 1: Demographic Profile of the Student Respondents

No.	Exceptionalities/Disabilities	Gender	Age (Years)
1	Autism	Male	12
2	Autism	Male	10
3	Autism	Male	11
4	Autism	Male	14
5	Autism	Male	11
6	Autism	Male	11
7	Autism	Male	10
8	Intellectual Disability	Male	10
9	Intellectual Disability	Male	10
10	Intellectual Disability	Male	13
11	Intellectual Disability	Male	15
12	Intellectual Disability	Male	10
13	Intellectual Disability	Male	13
14	Down Syndrome	Male	17
15	Down Syndrome	Male	15
16	Learning Disability	Male	11
17	Down Syndrome	Female	16
18	Down Syndrome	Female	16
19	Down Syndrome	Female	16
20	Down Syndrome	Female	21
21	Intellectual Disability	Female	13
22	Intellectual Disability	Female	11
23	Intellectual Disability	Female	15
24	Intellectual Disability	Female	15
25	Intellectual Disability	Female	18
26	Intellectual Disability	Female	12
27	Intellectual Disability	Female	12
28	Intellectual Disability	Female	12
29	Intellectual Disability	Female	14
30	Multiple Disability	Female	10

Sources of Data

The case study used informal interviews, observations, supporting documents medical and school records, questionnaires and checklist as sources of data. According to Calderon *et al*. (1993), defined case study as an extensive and intensive investigation of a unit represented, whether the unit is an individual, a family, a social group, an institution, or a community, the aim of which is to identify causal factors to some abnormality or deficiency and to find and recommend a solution, a treatment or developmental procedures.

The instrument used in gathering the data was the Educational and Psycho-diagnostic Screening and Assessment of Children with special needs from the resource material prepared by the Special Education Division, Bureau of Elementary Education, Department of Education and currently used by the Elementary School. The other instrument used is Standardized Philippine Physical Fitness Test introduced by Dr. Aparicio H. Mequi (1988) [8]. This Philippine Physical Fitness Test is use to determine the level of Physical Fitness of the subject. It assessed if the level of Physical Fitness of the subject with mild mental

retardation improved after using the Individualized Educational Plan.

The observation was done during the initial visit of the researcher in the classroom wherein the respondents was having classes last July 2012. The researcher observed the behavior and attitude of the pupils. Another observation was made during their P.E. day and conducted every friday.

Interview was another instrument used for corroborative purposes and for clarification of conflicting findings or incomplete information in their Case History Form (Appendix_____). An interview schedule was made for the availability of the Sped Teacher and Parents.

Procedures of Data Gathering

Preparation

The researcher prepared a letter to the Schools Division Superintendent of the City Schools of Taguig requesting her permission to conduct the study. When the approval was obtained last February 15, 2012, the researcher paid a courtesy visit to the principal of EM'S Signal Village Elementary School and to whom the researcher gave the duly approved letter of permit. The researcher explained to the principal something about the research and its objectives. The principal called the teacher in charge of the special education class and introduced the researcher to her. Then, the researcher proceeded to the sped class room where he conducted initial observations of the behavior of the Special Learner.

Pictorial documentation of different events in conducting the Physical Fitness Tests and classroom visitation is in Appendix _____.

Statistical Treatment and Analysis of Data

Qualitative analysis of data was used in order to interpret data of the study. It results in a different type of knowledge than does quantitative inquiry because one party argues from the underlying philosophical nature of each paradigm, enjoying detailed interviewing and the other focuses on the apparent compatibility of the research methods, "enjoying the rewards of both numbers and words". The analysis of qualitative research notes begins in the field, at the time of observation, interviewing, or both, as the researcher identifies problems and concepts that appear likely to help in understanding the situation. Simply reading the notes or transcripts is an important step in the analytic process.

Moreover, the following statistics were used to treat the effect of ICT in the behavior and learning development of a child with special needs.

1. **Frequency** and **Percentage (%)** was used to determine the magnitude of the responses to the questionnaire. The formula is:

$$\textbf{\textit{Percentage}}\ (\%) = \frac{n}{N} \times 100$$

Where

n = number of responses; and

N = total number of respondents

2. **Weighted Mean** ($\underline{x}$) was used to determine the average score of the perception of the respondents. Below is the formula given as:

$$\underline{x} = \frac{\sum fx}{n}$$

Where

$\underline{x}$ = weighted Mean; and

$\sum fx$ = summation of the product of the frequency and the scores; and

n = number of responses

4. Presentation, Analysis and Interpretation of Data

This chapter presents the data of the study, and were analyzed and interpreted based on the specific research questions. Data were also summarized and presented in tabular form to facilitate interpretation and achieve clarity of presentation of findings.

1. What is the demographic profile of the respondents in terms of;
   a. Chronological age
   b. Mental Age
   c. Sex
   d. Type of Learner

Table 2: Frequency and Percentage Distribution of Respondents in terms of Chronological Age

Age Bracket	Frequency	Percentage (%)
10 years old and below	7	23.33
11 - 15 years old	17	56.67
16 - 20 years old	5	16.67
21 years old and above	1	3.33
Total	**30**	**100.00**

Table 2 distribution shows that majority of respondents whose age ranging from 11-15 years old are 17 or 56.67%,other respondents whose age ranging from 10 years old below are 7 or 23.33%, 16-20 years old are 5 or 16.67% and there's only 1 or 3.33 respondent whose age is 21 years old. It shows that majority number of respondent whose age ranging from 11-15 years old suppose to be in intermediate and high school but because of their deficiency, they are not yet ready to be included mainstreamed in regular classroom. And there were 5 whose age ranging from 16-20 years old suppose to be they belong in high school and college but because of their deficiency they are behind and there's one respondent whose age is 21 years old.

Table 3: Frequency and Percentage Distribution of Respondents in terms of Mental Age

Age Bracket	Frequency	Percentage (%)
3 years old and below	4	13.33
4 - 6 years old	17	56.67
7 - 9 years old	7	23.33
10 years old and above	2	6.67
Total	**30**	**100.00**

Among the 30 respondents 17 or 56.67% of them had a mental age of 4-6 years old, 7 or 23.33% had 7-9 years old mental age, 4 or 13.33% had 3 years old and below and 2 or 6.67% had mental age of 10 years old. The findings convey that their mental age is far behind their chronological age. Their physical feature is appropriate with their chronological age but their mental age is far behind their chronological age.

Table 4: Frequency and Percentage Distribution of Respondents in terms of Sex

Sex	Frequency	Percentage (%)
Male	16	53.33
Female	14	46.67
Total	**30**	**100.00**

The table shows that there are 30 respondents and majority of them are Male and they areb16 or 53.33% while only 14 or 46.67% are female. It can be seen from the table that there are more male pupils who have disabilities than female.

Table 5: Frequency and Percentage Distribution of Respondents in terms of Type of Special Needs

Type of Special Needs	Frequency	Percentage (%)
Autism	7	23.33
Intellectual Disability	14	46.67
Down Syndrome	6	20.00
Learning Disability	1	3.33
Multiple Disability	2	6.67
Total	**30**	**100.00**

As shown in Table 5 there are 14 or 46.67% respondents with Intellectual Disability, there were 7 or 23.33% respondents who has Autism, 6 or 20% of them are Down Syndrome, 2 or 6.67% had Multiple Disability and only 1 with Learning Disability.

2. What is the level of physical fitness of the respondents in terms of the ff;
   a. Speed- 40 M Sprint
   b. Muscular Strength- Push Up
   c. Flexibility- Sit and Reach
   d. Reaction time-Stick Drop Test
   e. Balance-Stork Balance Test
   f. Coordination-Basketball Pass

Table 6: Level of Physical Fitness of Respondents in terms of Speed

Level	Frequency	Percentage (%)
Low	13	43.33
Average	13	43.33
High	4	13.33
Total	**30**	**100.00**

As reflected in Table 6, 13 or 43.33% respondents belong to low and average level of physical fitness with regards to speed wherein the Physical Fitness test that measure speed is 40 M Sprint. There are only 4 or 13.33% belong to high level of Physical Fitness in terms of speed.

Table 7: Level of Physical Fitness of Respondents in terms of Balance

Level of Learning Development	Frequency	Percentage (%)
Low	30	100.00
Average	0	0.00
High	0	0.00
Total	**30**	**100.00**

The table shows that all of them belong to low level of physical fitness in terms of Balance. It shows that most of them had difficulty in balancing that's why they fall easily into side or out balance. The physical fitness test used in measuring balance is Stork Balance Test.

Table 8: Level of Physical Fitness of Respondents in terms of Flexibility

Level	Frequency	Percentage (%)
Low	24	80.00
Average	6	20.00
High	0	0.00
Total	**30**	**100.00**

Among the 30 respondents, 24 or 80% of them belong to Low level of Flexibility, 6 or 20% of them belong to Average level of Physical Fitness in terms of Flexibility. It shows that most the respondents are not flexible.

Table 9: Level of Physical Fitness of Respondents in terms of Coordination

Level	Frequency	Percentage (%)
Low	2	6.67
Average	14	46.67
High	14	46.67
Total	**30**	**100.00**

The Table shows that 14 or 46.67% respondents belong to Average and High level of Physical Fitness and 2 or 6.67% respondent belongs to Low level of Physical Fitness. It shows that most of them had average and high level of coordination. The Physical Fitness Test that measures coordination are Basketball pass and paper juggling.

Table 10: Level of Physical Fitness of Respondents in terms of Muscular Strength

Level	Frequency	Percentage (%)
Low	19	63.33
Average	11	36.67
High	0	0.00
TOTAL	**30**	**100.00**

The table shows that 19 or 63.33% respondents belong to low level of Physical Fitness in terms of Muscular Strength. The physical fitness test that measures Muscular Strength are Push up, curl up, and standing long jump.

Table 11: Level of Physical Fitness of Respondents in terms of Reaction Time

Level	Frequency	Percentage (%)
Low	18	60.00
Average	12	40.00
High	0	0.00
Total	**30**	**100.00**

The above table shows that 18 or 60% of respondents belong to low level of Physical Fitness in terms Reaction Time. 12 or 40% respondents belong to Average level. The physical fitness test that measures the Reaction time is Stick Drop Test.

3. What sports activities are engaged in by the respondents?

As reflected in Table 6, 7, 8, 10 and 11, the respondents level of physical fitness are low. The following sports activities where they are engaged in presently can be done at least 2x a week.

- Athletics
- Badminton
- Basketball

- Softball
- Gymnastics, Artistic
- Table Tennis
- Tennis
- Volleyball
- Football (Soccer)

4. What is the effect of these sports activities on the learning interests of the respondents?

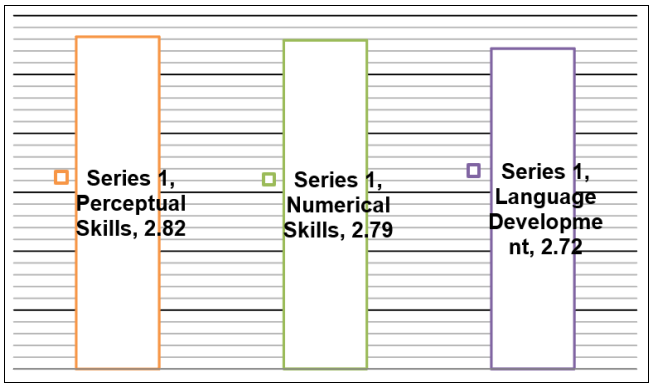

Fig 2: The Development Skills of the Respondents on their Learning Interests

Legend:
0.00 – 0.66 – Not Present
0.67 – 1.32 – Fairly Observed
1.33 – 3.00 – Present

The above findings shows that sports activities has an effect on the learning interest of the respondents most especially in their Perceptual Skills such as comparing objects according to size, height, color, texture, quantity, tast and shape, Orders by size, length, texture, color and quantity, recognition of shapes, money, color, up-down, sad and happy and lastly Spatial Relations like understanding distinctions of in-out, under-above, front-back, up-down, left-right and beside and between.

Secondly, there's an effect on the learning area of the respondents with regards to Numerical Skills and lastly on Language Development.

The respondents follow instructions wih less talk and questions. They perform what the teacher wanted them to perform without asking. Slow Development on language shows in the Fig 2.

5. What program could be recommended to help improve the various areas of development of the respondents?
   - Physical Education Program using the Philippine Physical Fitness Test
   - Paralympics or intramural of special learners
   - Health and Nutrition Program (Feeding Program)
   - Daily Stretching or Exercise of at least 20 minutes.

5. Summary, Conclusion and Recommendation

Summary of the Findings

1. Majority of the respondents have Intellectual Disability. The special learners were not included in regular class and given special program to improve the emotional, social, mental, physical and spiritual aspect. There were 16 boys and 14 girls included in the study.
2. The Physical Fitness test has a significant contribution on the physical development of the respondents. There were only 6 Physical Fitness Test conducted and special children are capable of performing.

Conclusion

Based on the findings of the study arrived at the following conclusions:

1. The performance level of the respondents in the different physical fitness test range from low to high with predominant of low performance level in almost area.
2. In the Physical Fitness Test, it utilizes different test to measure the speed, coordination, balance, muscle strength, flexibility and reaction time that helped student's improved their physical well being.
3. The respondents showed low performance in almost 5 Physical Fitness Test.

Recommendations

Based on the findings and conclusions of the study, the following recommendations are hereby proposed:

1. Fitness should be an essential part of both academic and domestic programs for individuals with special needs. The idea is not to raise a generation of athletes; rather, it's to develop fundamental movements that have a direct impact on daily skills, aspects of independent living, self-efficacy and self-esteem.
2. A plan of Activities which would include more conditioning exercise, gymnastic activities, outdoor games and dances be formulated and implemented by Sped Teachers to improve the performance level of special learners in the PPFT.
3. The physical fitness test where the special learners found weak like in Push Up, Stork Balance Test, Curl up, Stick Drop Test, 40 M Sprint will be strengthened by conducting continous activities that will improve their level of physical fitness performance. Such activities includes jogging, running, jumping, bending, etc. to ensure the leg power and endurance, speed, flexibility and balance.
4. Information dissemination to parents regarding their children's physical fitness status be inititated during parents-teachers association (PTA) meeting and encourage them to indulge their children in any sport wherein that he/she's interested and performing well.
5. Training in the Proper administration and interpretation of the PPFT and in the use of the teachers manual in Physical Education be conducted among Special Education Teachers.
6. More facilities and equipment such as accurately measured running track stop, stopwatch, mat, and others be provided.
7. Similar Studies be conducted in all special children in different Sped Centers of Taguig City and other divisions where they are enrolled.

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7. References

1. Amisola RVB, Jacobson MS. Physical Activity, exercise and sendentary Activity: Relationship to the causes and treatment of Obesity Adolescent Medicine, 2003.
2. Batshani ML. Physical Activity in Children with disabilities: 5th Edition, Paul H. Brooks Publication Company, 2002.
3. Horwitz SM, Kerker BD, Owens PL, Zigler E. The Health Status and Needs of Individuals with MR. Dept of Epidemiology and Public Health Yale University School of Medicine, 2000.
4. Krebs P. Mental Retardation. In Adapted Physical Education and Sport. J. Winnick, Ed. Illinois: Human Kinetics Publishers, 2000.
5. Loovis EM. Behavioral Disorders. In Adapted Physical Education and Sport. J. Winnick, ed. Illinois: Human Kinetics Publishers, 2000.
6. Pitetti KH, Abendroth SL, Sharp DL, Miller JJ. Longitudinal evaluation of Physical fitness profiles of adolescents with MR. Medicine and Science in Sports and Exercise, 2002.
7. Pitetti KH, Yarmer D, Fernhall B. Cardiovascular fitness and body composition of youth with and without MR. Adapted Physical Activity Quarterly, 2001.
8. Mequi Aparicio H. Director BPESS- Foundation of Philippine Physical Education and school Sports, April 1988, p. 4.
9. Revised Physical Fitness Test Manual, DECS, BPESS, Manila, 1994.
10. Proclamation No. 506 – "Declaring the Period from 1990 to 2000 as the Decade of Physical Fitness and Sports" May 3, 1989 by Corazon C. Aquino, President Republic of the Philippines.
11. Educational and Psycho-Diagnostic Screening and Assessment of Children with Learning Disabilities, SPED Division, BEE, DECS.
12. Villaranda Estrella Navarette, The Physical Fitness Levels of Intermediate Pupils in the Division of Legazpi City: It's implication to Physical Education Program. Unpublished Master's Thesis, Bicol University, 2001.
13. Karamihan Bernadette. Case Studies of Five Filipino Autistic Children. Dela Salle University, 2001.
14. Huang Kuang Wei (James). A study on the Physical Fitness of Chidlren with Mild Mild Mental Retardation in various self-testing activities. Dela Salle University, 2001.
15. Hsu Yung Han. Case Studies on the Perceived effects of Inclusion on the behavior of Children with Mental Retardation. Dela Salle University, 2001.
16. Gawidan Janet Tacio. Parent-Teacher Collaboration in the Educational Intervention of Children with Mental Retardation. University of Cordillera, 1999.
17. Regidor Cesar C. Implementation of the Philippine Physical Fitness Tests: Its Implication to the Physical Education Program. University of Saint Anthony, 1998.
18. Macalam Natividad T. The Effects of Exercise on the Physical Fitness Level of Children ages 9-12 years old. National Library Archives, 1998.
19. Aquino James R. Assessment of the Physical Fitness of the Elementary School Pupils of Santa Lucia District. National Library Archives, 1999.
20. Gayrama Maximo C. The New Philippine Physical Fitness Test: It's Validity, Reliability and Percentile norm. National Library Archives, 1991.
21. Villareal Joan G. Gross Motor Deficits among Preschool Children with Mental Retardation who have Physical handicaps. National Library Archives, 2005.
22. Lontoc Cheryl Lynn L. Programs, Services and Facilities for Children with Mental Retardation in Selected Public Schools in NCR: Implications to SPED Admin: National Library Archives, 1997.