ROLE OF SPORTS IN DEVELOPMENT OF SPECIAL CHILDREN

A Case Study

A Sportz Village Enterprise

ACKNOWLEDGEMENT

It gives us great pleasure to acknowledge the contributions and goodwill of all those who helped make this possible. We would like to particularly thank the Lalaji Memorial Omega International School (LMOIS) for providing us with a case study. It is through the exploratory exposition of this case study that we were able to put forth our findings. We are especially grateful to them for sharing their time and effort in putting across their data and learnings with us. In their contributions, LMOIS made possible a route to foster a better and a wholesome understanding of the need for sports for children with developmental needs. The data, findings and learnings from the case study has immense and far-reaching consequences for the field, and we are exceptionally thankful to LMOIS for their cooperation in making this happen.

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1. INTRODUCTION

This paper discusses the role of sports education, in the development of children with Special Education Needs who are typically characterized by severe communication and learning problems. Such children learn and develop at a much slower pace than other kids their age and struggle to perform routine functions that most people take for granted. Do sports have a positive impact on the development of special children? While it is believed that physical activity trains and benefits the body and the mind, the extent of its benefit for children with special needs, needs to be understood better. This paper will study the impact that sports has on children with special needs and what children stand to gain from team sports and participation in physical activities.

2. ROLE OF SPORTS IN DEVELOPMENT OF CHILDREN

Children enjoy playing, which is a well-known fact. Whether it is playing informally, competitive play or playing just for fun, sports presents various experiences, situations and opportunities that have physical, social, psychological and academic benefits for children. Sports, play a significant role in children's lives in developing their health and wellness. Regular physical activity provides numerous health benefits for children. It helps control or reduces the risk of chronic diseases, such as heart disease, hypertension, diabetes, and osteoporosis and improves their metabolic health. Children who are physically active are more likely to grow into physically active and emotionally balanced adults.

3. ROLE OF SPORTS IN DEVELOPMENT OF SPECIAL CHILDREN

While several research studies have highlighted the positive impact of sports on children, there is a need to understand the impact of physical activity and sports on children with special needs.

Children with special needs face individual challenges that make even the simpler acts an uphill battle because of their neurological make up and differently abled bodies. Children with disabilities are more likely to be overweight due to their sedentary life style and as a result could suffer from osteoporosis, reduced cardiovascular fitness and other related medical issues. Other problems they are faced with are decreased self-esteem and social acceptance, leading to a greater dependence on others for their daily living.

1. Several studies have indicated the positive impact of sports on the development of special children. Special needs children benefit from participating in sports by way of making friends, being creative, improving their self-esteem and confidence, among other things.

2. Studies have shown that regular participation in sports can encourage independence, coping abilities, competitiveness, and teamwork among children with disabilities.

3. Children with developmental disabilities have been known to show a reduction in stereotypic movements, maladaptive behaviours, and fatigue with mildly taxing exercises. Sports play an important part in their development, and since children spend most of their learning years in school, the environment in school needs to be favourable to their overall development. The vital support provided by the teachers and coaches becomes an important factor in determining the way that the children see and accept themselves and this ultimately shapes their personalities.

4. Children feel comfortable while attempting new challenges without the fear of failure inhibiting their enthusiasm. They learn to interact in society and adapt by competing in team sports. They also learn to become more responsible, and as their confidence levels rise, they become happier and calmer individuals.

5. The following sports have been noted for their special benefit to children with learning disabilities:

- Swimming helps children in coordinating their motor movements and balancing themselves
- Water activities help children with developmental disabilities feel relaxed
- Yoga helps to increase focus and develop motor movements
- Running or any form of rigorous physical activity helps children with learning disabilities vent out their
- energy and focus better
- Activities like passing the ball and dribbling works on gross motor skills and hand-eye coordination

Children with developmental disabilities can do well in sporting activities that do not entail higher social and communication skills. They do better in individual sports where their individual efforts are appreciated. This in-turn helps them build their fitness and coordination, and help them become self-confident. Swimming, running, cycling, and lot of other sports confer the children a sense of belonging to a team, without having to read the other team members' non-verbal or verbal clues.

The idea is to choose the right one based on the child's interest, energy level, physical coordination, attitude towards competition etc. These children have a remarkable ability to take on physical challenges when the anxiety of social and communication demands are removed from the equation.

6. Specifically designed exercises can help these children thrive in nurturing and positive environments while enhancing their physical coordination and intellectual strengths.

7. Thus, children with intellectual disabilities need a structured physical plan suited to their specific needs that addresses their individual issues.

In a study conducted by members of the Anadolu University, a School of Physical Education and Sports based in Turkey, the effects of water exercises and swimming on motor performance and physical fitness were studied, to observe the behaviour of children with developmental disabilities as they became familiar with the pool, and to observe their development. After 10 weeks of swimming training, it was found that not only did the children's balance, speed, agility and strength increase, but also that there was a corresponding increase in the hand grip, upper and lower extremity muscle strength, flexibility and cardio-respiratory endurance. After the hydrotherapy, the amount of stereotypical autistic movements significantly decreased.

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4. A CASE STUDY: OMEGA INTERNATIONAL SCHOOL'S APPROACH TO SPORTS EDUCATION FOR CHILDREN WITH SPECIAL NEEDS

In order to get a real-time and deeper understanding of the impact of sports on children with special needs, we executed a study with the Lalaji Memorial Omega International School, Chennai, India.

Lalaji Memorial Omega International School (LMOIS) has over 100 children with special needs. These are children with different abilities, those who see the world in their own special and unique way. The school has categorically assessed the special abilities of a considerable number of children and placed them in separate sections and follows a noteworthy method of teaching the regular curriculum to them.

Apart from teaching them regular subjects, the school has been keen on creating sports interventions for these children. EduSports has been working with LMOIS for providing a structured physical education program. In the academic year of 2013-14, EduSports ran a separate, Adapted Physical Activity (APA) program for the students with special education needs studying in LMOIS.

As per the LMOIS' categorisation, below are difficulties

- Attention deficit hyperactivity disorder (ADHD)
- Weak muscle tone
- Difficulty crossing midline
- Difficulty in hand-eye coordination
- Difficulty in understanding spatial awareness
- Slow learners

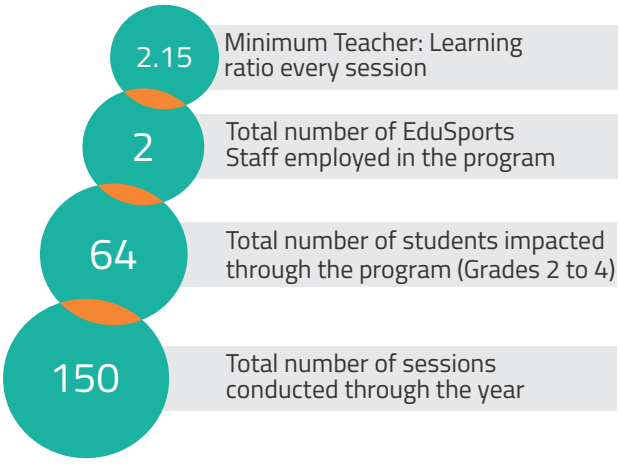
faced by the special needs children based on which the EduSports' intervention programme was designed.

The APA programme, analysed the number of students with each of these documented difficulties and implanted an intervention for the children accordingly. As a part of this intervention, EduSports assigned innovative physical activities to the children at the beginning of each day and monitored the results of the same over a period of time. The EduSports props were used in these specially designed activities aided in reducing the children's difficulties in the following areas- attention span, muscle tone, crossing of the midline, spatial sense, hand eye coordination, slow learning etc.

Some of the activities that were conducted are as follows:

- Improving Sequential memory through colour sequence activity and to reproduce the sequence of the colours observed
- Improving muscle tone through "egg roll" over the gym mat using maximum number of muscles through the activity
- Enhancing hand-eye coordination using ball or bean bag juggling activity
- Structured walking / running activities to help locomotor skills and balancing skills

a. EduSports Intervention - Vital Stats



b. Results

Data was recorded at two stages – the pre-assessment stage, taken at the beginning of the year before the APA program, and post-assessment stage, taken at the end of the year, after the conclusion of the APA program. The data recorded 5 parameters for all children – Aerobic Capacity, Anaerobic

Capacity, Upper Body Strength, Lower Body Strength and Flexibility.[8] The below charts indicate the improvement the children have exhibited as a result of the EduSports intervention.

8 Note: Data represented below includes only Grades 2, 3 and 4 since they were under the purview of the APA program. Comparison against school averages also includes only these grades.


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CHART 1: FITNESS IMPROVEMENT

"The activities were fun and at the same time the children learned to manage their body and develop coordination. I have been observing the activities and the improvement that the children have been showing. The children have been getting better at their space management, hand eye coordination and they are better adaptive individuals," says Dr. Shamala, Coordinator grades 1 to 7, LMOIS, Chennai.

"Since these physical activities were kinesthetic it improved the hand eye coordination of the children and also we could see academic improvements. This service has been very valuable for the children, and we will continue to work the same way with EduSports in the coming years to bring in a holistic development for them," said Priti Venkatesan head of the Special Education department, LMOIS, Chennai

Clearly structured sports activities have had a very positive impact on the children at LMOIS. The EduSports team was able to help the children overcome their difficulties through physical activities that were fun and engaging and also customised for each child depending on his/her specific need. It has not only helped develop healthier and fitter children, but also enhanced their intellect.

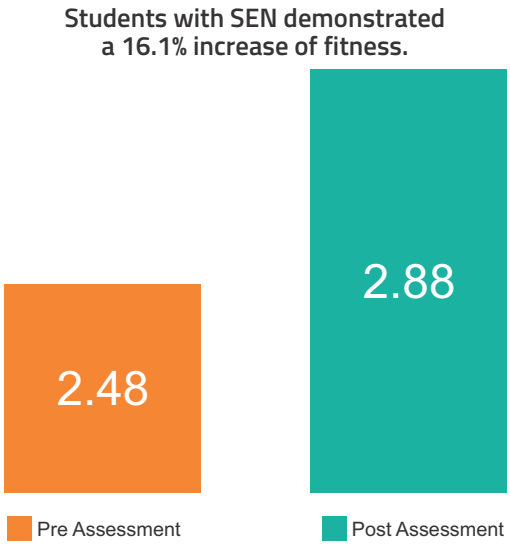

CHART 2:

The below chart indicates Individual Improvement of Students with special education needs (SEN) under the APA program. Out of 64 children, 69% of the students with SEN demonstrated increased level of fitness after the program

CONCLUSION

Sports education and physical activity provides physical, emotional and social benefits for children in general and doubly so for children with special needs. While the difficulties they experience while reading and writing may lower their confidence due to the cognitive disadvantages, sports provides a platform to exhibit their talent thereby enhancing their confidence and self-esteem. Physical activity decreases their level of anxiety by also giving them an outlet for venting excess energy.

Our curiosity to study the relationship and impact of sports on children with Special Educational Needs encouraged this study. To this end, our findings have revealed a significantly positive correlation between impact of sport on children and their lives.

The programme at LMOIS has clearly indicated the need for an integrated sports education programme for special children. The range of activities designed specifically for the children reduced children's difficulties in attention span, muscle tone, crossing of the midline, spatial sense, hand eye coordination, slow learning etc., thereby creating positive impact on every child's development. The APA program has also brought about academic improvement in children with special needs. Also beyond class 8 LMOIS does not have a separate special children's as the school has observed that children eventually become better adjusted in the higher classes.

It is evident from our study that inclusion of sports and physical activity as part of the curriculum helps special children develop in a wholesome and well-rounded manner. They feel a sense of achievement while participating in sports that are specifically designed for them. It encourages them to develop a sense of trust in their abilities, develop self-esteem and gain self-confidence.

ABOUT EDUSPORTS

EduSports, India's No. 1 Sports Education Organization, believes in developing a healthier and fitter generation. Spread across 250+ locations in India, EduSports currently works with 650+ schools and engages over 5,00,000 children in an inclusive and sporting experience. The objective of EduSports program remains resolute, which is to offer an opportunity outside the class to improve fitness, build leadership and social skills and most importantly to have fun through sports.

Vision

To get 100 Million people to play and experience the magic of sports by 2020.

Mission

To get people to play, experience the magic of sports and help build a healthier and fitter world.

Values

- Play
- Trust
- Responsiveness
- Excellence

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