ISSN 2229-5143

JOURNAL OF DISABILITY MANAGEMENT AND SPECIAL EDUCATION

JDMSE Journal

JODMSE Volume 1 Number 2 July 2011

RAMAKRISHNA MISSION VIVEKANANDA UNIVERSITY
FACULTY OF DISABILITY MANAGEMENT AND SPECIAL EDUCATION

Vol. 1. No. 2 July 2011 *Journal of Disability Management and Special Education*
ISSN: 2229-5143

Play Activities to Enhance Gross Motor Skills in Children with Visual Impairment

* A.Divyapriya, ** K.Sambath Rani

Abstract

Play is recognized as an important part of a child's development. In the field of early childhood special education, play is valuable in assessing a child's level of development and in providing intervention. The present study has been under taken with the objective to develop gross motor skills through play which enhances better participation of children with visual impairment in all functional activities. The sample for the investigation included 30 visually impaired children in the age group of 6-11 years. The study was experimental in nature. A checklist was prepared to assess the gross motor skill development among samples. Based on the assessment a play activity kit was developed and implemented. Results reveal that intervention programme was found to be effective in the development of gross motor skills. The play activity kit serves as a best tool for the special educators/resource teachers and parents in developing gross motor skills among their visually impaired children through play.

Key terms: Play Activities, Gross Motor Skills, Children with Visual Impairment

Introduction

Play is freely chosen, intrinsically motivated and personally directed. Play has been long recognized as a critical aspect of childhood and child development. Play is one of the ways children learn about themselves, the people around them, their environment and their community. It is an essential part of every child's life and important to their development. Only through play, children learn to explore the world around them, develop and practice skills that they will use throughout their lives.

Visual impairment can limit the range of experiences and information available to a child and thus, have a significant impact on child's emotional, neurological and physical development (Mervis etal., 2000). Motor skills that are important for daily motions are posture, balance, coordination, and the ability to move (Palazesi, 1986). These skills are also important for mobility. The independent variables that determine mobility are motor, sensory and conceptual skills (Merbler & Wood, 1984).

Most children who are born with low vision participate in gross motor activities like their sighted peers. Even though these children

* *Resource Teacher, Sri Avinashilingam Trust Institutions, Coimbatore - 641 043, divyakannan05@gmail.com*

** *Assistant Professor, Department of Special Education, Avinashilingam Deemed University for Women, Coimbatore - 641 043, sampathrane@yahoo.co.in*

appear to be physically normal, their early physical development milestone are often delayed and out of sequence (Adelson and Fraiberg 1997). Blind children generally had low muscle tone, poor posture and motor skills and difficulty coping with activities in the prone position and they rarely initiated movements (Adelson and Fraiberg, 1976, Sykanda and Levitt, 1982).

Magalhaes et al., (1989) noted that the ability to move about in and explore the environment must be considered essential to the global development and adaptation of children to their environment. According to Haywood (1986) the preteen and teenage years are an ideal time for overcoming learning impairments in the efficiency of motor patterns.

Studies have documented the numerous beneficial effects of play for children (Berger, 1988; Johnson et al., 1987). During play, children practice interacting with others, which leads to social competence and this competence, is reflected in the increasingly interactive characteristics of play as children grow older (Goncu, 1993; Herzka, 1986; Johnson, et al., 1987; Pellegrini, 1982). Similar scaffolding has been reported in the areas of cognitive, motor, creative, emotional, and language development (Herzka, 1986; Spodok & Saracho, 1988).

Objectives

- To study the impact of play activities on the gross motor development of children with visual impairment.
- To find out the impact of play activities on gross motor skills with respect to age, gender, locality, nature of disability, educational status and income of the Parents.

Methodology

In this study attempts have been made to enhance gross motor skills among visually impaired children through play which helps the child to attain gross motor skills easily. The sample for the investigation included 30 visually impaired children in the age group of 6-11 years. The investigator used purposive sampling technique to select the sample. The study was experimental in nature. The main independent variables were age, gender, type of schooling, type of visual problem, family income, educational status of parents and locality. The main dependent variable included in the study is gross motor skills of visually impaired children.

Interview schedule prepared by the investigator elicited information on age, gender, nature of disability and background information of selected visually impaired children. A checklist was prepared to assess the gross motor skill development among them. It includes five main gross motor skills such as posture, walking, balancing, motor strength, sensory integration and motor planning and 25 sub components. Based on the assessment the investigator developed a play activity kit in such a way that each play covers variety of gross motor skills such as passing, clapping, walking and jumping. The play activity kit serves as the tool for the special educators/ resource teachers and parents in developing gross motor skills among their visually impaired children.

Results and Discussion

Pre and post test mean scores of motor skills

Table: 1 presents pre and post tests mean scores of gross motor skills

Variable	Testing	N	df	Mean	S.D	t-Value
Gross Motor Skills	Pretest	30	29	13.47	4.09	11.587**
	Posttest			18.33	2.70	

** Significant at 0.01 level

The table: 1 reveals that the t - value for gross motor skills (t = 11.587) was significantly different between pre and post tests mean scores at 0.01 level. Therefore, the null hypothesis stated as "There is no significant difference in the gross motor skills of visually impaired children before and after intervention" is rejected stating that the play activities made a significant influence on gross motor skills of children with visual impairment. This result coincides with the results of Burlingham, 1975; Ervin, 1993; Ferrell, 1986; Skellenger & Hill, 1994, states that "Since children with visual impairments may benefit from active, age-appropriate play activities. Information on their levels of play is necessary for developing intervention studies to improve their play behaviours".

Pre and post mean scores of gross motor skills with respect to Age

Table:2 presents Pre and post tests mean scores on Gross motor skills with respect to Age.

Variables	Levels	Testing	N	df	Mean	S.D	t- Value
Age (In years)	6 - 8 years	Pretest	18	17	11.11	3.14	15.39**
		Posttest			16.89	2.27	
	9 - 11 years	Pretest	12	11	17.00	2.49	4.70**
		Posttest			20.50	1.62	

** Significant at 0.01 level

The table: 2 reveals that the t - value of the children at the two age groups namely 6 - 8 years (t = 15.39); 9 - 11 years (t = 4.70) was significantly different between pre and post mean scores of fine motor skills at 0.01 level. Therefore, the null hypothesis stated as "There is no significant difference in the gross motor skills of visually impaired children before and after intervention with respect to age" is rejected stating that the play activities made a significant influence on gross motor skills of children with different age groups.

Pre and post mean scores of gross motor skills with respect to gender

Table: 3 presents pre and post tests mean scores of gross motor skills with respect to gender

Variables	Levels	Testing	N	df	Mean	S.D	t- Value
Gender	Boys	Pretest	18	17	13.83	4.19	9.11**
		Posttest			18.83	2.85	
	Girls	Pretest	12	11	12.92	4.06	6.88**
		Posttest			17.58	2.35	

** Significant at 0.01 level

While considering the pre and post mean scores of boys (t = 9.11) and girls (t = 6.88) the t - values differ significantly at 0.01 level. Therefore, the null hypothesis stated as "There is no significant difference in the gross motor skills of visually impaired children before and after intervention with respect to gender" is rejected stating that the play activities made a significant influence on gross motor skills of boys and girls.

Pre and post mean scores of gross motor skills with respect to nature of disability

Table: 4 presents Pre and post mean scores of Gross motor skills with respect to nature of disability

Variables	Levels	Testing	N	df	Mean	S.D	t- Value
Nature of disability	Totally Blind	Pretest	18	17	12.28	4.04	9.33**
		Posttest			17.39	2.45	
	Low Vision	Pretest	12	11	15.25	3.62	6.73**
		Posttest			19.75	2.49	

** Significant at 0.01 level

It is clear that there was significant difference in the pre and post mean scores of children with total blindness (t = 9.33) and low Vision (t = 6.73) at 0.01 level. Therefore, the null hypothesis stated as "There is no significant difference in the gross motor skills of visually impaired children before and after intervention with respect to nature of disability" is rejected stating that the play activities made a significant influence on gross motor skills of children with different nature of disability.

Pre and post tests mean scores of gross motor skills with respect to educational status of parents

Table: 5 presents pre and post tests mean scores of gross motor skills with respect to educational status of parents

Variables	Levels	Testing	N	df	Mean	S.D	t- Value
Educational Status of parents	Literate	Pretest	17	16	14.71	4.33	6.73**
		Posttest			18.71	2.71	
	Illiterate	Pretest	13	12	11.85	3.24	14.16**
		Posttest			17.85	2.70	

** Significant at 0.01 level

There was significant difference in the pre and post test scores with respect to educational status of parents i.e. Literate (t = 6.73) and Illiterate (t = 14.16) at 0.01 level. Therefore, the null hypothesis stated as "There is no significant difference in the gross motor skills of visually impaired children before and after intervention with respect to educational status of parents" is rejected stating that the play activities made a significant influence on gross motor skills of children with visual impairment.

Pre and post tests mean scores of gross motor skills with respect to income of parents

Table: 6 presents pre and post tests mean scores of gross motor skills with respect to income of parents

Variables	Levels	Testing	N	df	Mean	S.D	t- Value
Income of parents	Low	Pretest	5	4	14.0	3.32	4.33*
		Posttest			18.20	2.68	
	Middle	Pretest	8	7	12.38	4.41	8.61**
		Posttest			18.00	3.38	
	High	Pretest	17	16	13.82	4.28	7.62**
		Posttest			18.53	2.50	

* Significant at 0.05level ** Significant at 0.01 level

The t - value of the samples indicate the significant difference between the pre and post tests mean scores of samples belong to various income status of parents namely low (t = 4.33) at 0.05 level , middle (t = 8.61) and high (t =7.62) at 0.01 % level. Therefore, the null hypothesis stated as "There is no significant difference in the gross motor skills of visually impaired children before and after intervention with respect to income of parents" is rejected stating that the play activities made a significant influence on gross motor skills of children with different income status of parents.

Conclusion

Lack of vision affects the child's motor development. Basic motor skills are necessary for the visually impaired children for survival in everyday life. Gross motor skills are essential to attain quality movement in mobility, concept, personal and social development. For children with visual impairment to move skillfully and independently it is necessary for them to develop gross motor skills. These children therefore require specific training to develop gross motor skills. Intervention programme implemented was found to be effective in the development of gross motor skills. The mean pretest score of selected samples in performing gross motor skills is being 13.47 whereas the posttest score increased to 18.33 after intervention. It was found that the intervention in gross motor skills helped in improving the performance of the sample with respect to age, gender, nature of disability, educational and income status of parents. The results reveal positive impact on

the attainment of gross motor skills through play by the children with visual impairment.

References

Bouchard, D., and Tetreault, S. (2000). "The Motor Development of Sighted and Children with Mild Low Vision Aged 8-13", *Journal of Visual Impairment and Blindness*, 94: 564-573.

Fraigberg, S. (1974). "Gross Motor Development in Infants from Birth, *Child Development*, 45: 114-126.

Gallahul, D. (1982). Understanding Motor Development in Children, UK-Welsey Publishing Company, pp. 134-254, 378-87,385-93.

Goldberg, C. (1989). Normal Motor Development, Philadelphia: B. B. Lippincott Company, pp. 1-15.

Hurlock, E. (1988). Child Development, 6th edition, New Delhi- Mcgraw hill, pp. 13-48.

Murlidharan, R. (1983). Motor development of Indian Children Developmental norms for Indian Children 2 Years to 5 Years, New Delhi: National Council for Educational Re- search and Training.

Sandra, A. (2000). "Early Motor Development of Blind Children", *Journal of Paediatrics and Child Health*, 36: 226-238.

www.eric.com

www.nifplay.org/states_play.html.

www.playfoundation.com

www.wikipedia.com

Universal Lingua Franca

Kindness is a language which blind can see and deaf can hear,
Then why don't you use this particular language my dear?

Kindness is a language which LD can grasp and MR can understand,
Then why don't you use language lending them a helping hand?

Kindness is a language which Autistic can recall and CP can tackle,
Then why don't you use language leaving entire lame shackle.

Wow! Its matter for all of us of an utmost glee,
That kindness is a language which deaf blind can see.

I say abandon all the languages which are hollow,
And use a language which everyone can easily follow.

That language is the language of kindness.....

Composed by
Abhishek Kumar Srivastava
Asst. Professor, RKMVU, FDMSE- Coimbatore