

# Samwaad

*Promoting Dialogue in Education*

## Samwaad: e-Journal

International Refereed & Indexed  
Journal of Education & Social Sciences

<http://samwaad.in>

ISSN: 2277 - 7490

Special Edition

Jan 7<sup>th</sup>, 2018



Centre for Differently Abled Persons  
Bharathidasan University  
Tiruchirappalli, Tamil Nadu, India



&

Tamilnadu Udhavikaram Maatruthiranalal Nalvaalvu Sangam  
Chennai, Tamil Nadu, India

*Jointly organizes*

International Conference  
on  
Achievements of  
and/or  
Innovations for the Specially Abled

**ICAISA2017**

Editors: Dr. M. Prabavathy

Dr. Anshu Mathur

[mailto: editor.samwaad@gmail.com](mailto:editor.samwaad@gmail.com)

# Samwaad

e- Journal

**ISSN: 2277 – 7490 (Online)**  
**Special Edition, Jan 2018**

## **Chief Editor**

**Dr. (Ms) Anshu Mathur**

## **Editorial Board**

Prof. Arbind K Jha

Dr. Namarata Sharma

Dr. Kishore Chavan

Dr. Umesh Chandra Pandey

Dr. Anupama Saxena

Dr. Jyoti Shrivastava

Dr. Raees Unnisa

Dr. Seema Kumari

Dr. Parth Sarthi Pandey

Dr. Verlaxmi Indrakanti

Dr. Chitra Sharma

Dr. M.Prabavathy



## Samwaad: e - Journal

Samwaad Educational Society registered under MP society act, is happy to launch Special Edition for International Conference on “Achievement of and/or Innovations for Specially Abled – ICAISA2017”. This journal is hosted on the “Samwaad” website <http://samwaad.in>

On this occasion, the entire team of Samwaad thanks Conference Organizing Secretary, Professors & Researchers for their valuable suggestions, input & guidance.

With all the very best wishes,

- Team “Samwaad”



### From the Desk of Editors

International Conference on Achievements of and/or Innovations for the Specially Abled (ICAISA) 2017 was designed to exhibit the talents, achievements and creativity of the specially abled in various fields and to bring out the innovations available for their upliftment and suggest measures that can be taken for the prevention of disabilities at various stages. It also aimed to create awareness about the Laws, conventions, education, employment and entrepreneurship opportunities, scholarships and to bring out a compendium on works done by / for the differently abled all over the world. This compilation of research is dedicated to the conference.

The author(s) of each article appearing in this special edition of Journal is/are solely responsible for the content thereof; the publication of an article shall not constitute or be deemed to constitute any representation by the Editors, the Samwaad e Journal and the Samwaad educational society that the data presented therein are correct or sufficient to support the conclusions reached or that the experiment design or methodology is adequate.

We are happy to present this special edission of Samwaad to facilitate learning and enhance the knowledge about recent researches in inclusive education.

We welcome ongoing dialogue with you and can be contacted at [editor.samwaad@gmail.com](mailto:editor.samwaad@gmail.com)

Dr. M. Prabavathy  
Dr. Anshu Mathur

## Index

S.No	Content	Page No.
1	<p><b>Socio-Economic Conditions Of Disabled Persons In Puducherry Region In The Union Territory Of Puducherry</b></p> <p><b>Dr. Annamalai Jegan</b></p>	<u>10-21</u>
2	<p><b>Enhancing Psycho-Social Behavior of Children with Autism and ADHD through Interactive Video Games</b></p> <p><b>Dr.M.Prabavathy</b> Assistant Professor and Head, Centre for Differently Abled Persons, Bharathidasan University, Tiruchirappalli-620023</p> <p><b>Sivaranjani.R</b> Research Scholar, Centre for Differently Abled Persons, Bharathidasan University, Tiruchirappalli-620023</p>	<u>22-30</u>
3	<p><b>My Ability is stronger than My Disability</b></p> <p><b>*Ms. Manju</b> Lecturer English Directorate of education, New Delhi</p> <p><b>**Dr. Karamvir Singh</b> Mentor Teacher Directorate of education, GNCT of Delhi</p>	<u>31-33</u>
4	<p><b>Desideratum Constitutive And Constructive Exigencies For Inclusive Education In India</b></p> <p><b>Dr. Anshu Mathur</b> Head, School Of Liberal Arts, Noida International University, Gautam Budh Nagar, UP, India E Mail: Dr.Anshumathur@Gmail.Com</p>	<u>34-38</u>
5	<p><b>Benevolence Of AIADMK Government For Specially Abled</b></p> <p><b>Dr.R.Anthony Raj</b> Asst. Professor Of History, L.N.Govt . College, Ponneri-601 204</p>	<u>39-44</u>

6	<p><b>A Co-Relational Study Between Social Media And Self-Esteem Of Specially Abled Students</b></p> <p><b>*Dr. Arvind Sharma</b> Associate Professor &amp; Coordinator, Department Of Mental Retardation, Faculty Of Special Education, <b>**Dr. Shakuntala Misra</b> National Rehabilitation University, Mohaan Road, Lucknow-226017 (UP)</p>	<u>45-50</u>
7	<p><b>ICT Innovations For Specially Abled</b></p> <p><b>T.Balasubramanian</b> Department Of Education Alagappa University, Karaikudi. Dr.K.Govindarajan, Research Supervisor, Department Of Education Alagappa University, Karaikudi.</p>	<u>51-60</u>
8	<p><b>Impact Of Pilate's Exercises And Yogic Practices On Kyphosis Deformity Among School Boys</b></p> <p><b>Mr. Bipin Das U R</b> Ph.D Research Scholar (Regular), Department Of Physical Education And Health Sciences, Alagappa University, Karaikudi.</p>	<u>61-67</u>
9	<p><b>Innovative Simulation Orientation Program To Enhance Academic Achievement Of Special Need Students On Loss Of Bio Diversity</b></p> <p><b>A.Chinnathai</b> Ph.D. Scholar (Full Time), Department Of Education, Alagappa University, Karaikudi-630 003.</p>	<u>68-74</u>
10	<p><b>Stakeholders: Parents Attitude On Assessment Of Special Schools</b></p> <p><b>*J.Ida Rose Paulin</b> &amp; <b>**V.Rajeswari</b> Mother Teresa Women's University Kodaikanal</p>	<u>75-79</u>
11	<p><b>Simple Technique In Identification Of Children With Strabismus</b></p> <p><b>Dr.P.Jeeva Shanthi</b> Assistant Professor, Department Of Special Education, Avinashilingam Institute For Home Science And Higher Education For Women, Coimbatore.</p>	<u>80-86</u>

12	<p align="center"><b>Promoting Pro-Social Behaviour Towards Children With Disabilities</b></p> <p align="center"><b>*Mrs. U. S. E. Porkodi</b> Research Scholar - Ph.D. Department Of Education, DDE Alagappa University Karaikudi-630 003</p> <p align="center"><b>**Dr. M.Vasimalairaja</b> Associate Professor In Education Department Of Education, DDE Alagappa University Karaikudi-630 003</p>	<u><a href="#">87-91</a></u>
13	<p align="center"><b>A Study Of Achievements Of The Specially Abled In Various Fields</b></p> <p align="center"><b>*Mr.G.Praveen Kumarm.</b> MSc.,M.Ed.,Pgdel.,Research Scholar-Ph.D. Department Of Education (Dde) ,Alagappa University,Karaikudi-630 003</p> <p align="center"><b>**Dr.M.Vasimalairaja</b> Associate Professor In Education Department Of Education (Dde), Alagappa University,Karaikudi-630 003</p>	<u><a href="#">92-96</a></u>
14	<p align="center"><b>Predicament Of Autism Children's In India</b></p> <p align="center"><b>Dr. A. Puvi Lakshmi,</b> Guest Faculty University Of Madras, Chennai</p>	<u><a href="#">97-103</a></u>
15	<p align="center"><b>A Pilot Study: To Reduce The Level Of Stress Through Guided Imagery On Spinal Cord Injury Cases</b></p> <p align="center"><b>*M. Ramakrishnan,</b> MOT (Mental Health), Occupational Therapist, JIPMER Hospital, Pondicherry, India. Email:Priyarama5masilamani@Gmail.Com</p> <p align="center"><b>**Hossain Shakhawath,</b> BOT, Occupational Therapist, CRP, Dhaka, Bangladesh. Email: Shakhawath.Sajip@Gmail.Com</p> <p align="center"><b>***Sarmily Roy,</b> BOT, Occupational Therapist, CRP, Dhaka, Bangladesh.</p>	<u><a href="#">104-109</a></u>
16	<p align="center"><b>A Single Case Study: Occupational Therapy Intervention On Spastic Diplegia</b></p> <p align="center"><b>M. Ramakrishnan</b> MOT, Occupational Therapist, JIPMER Hospital, Pondicherry-6, Vandana16ramteke@Gmail.Com</p>	<u><a href="#">110-114</a></u>

17	<p><b>Efficacy Of Ipad On Learning Science Among Students With Mild Intellectual Disability At Primary Level</b></p> <p><b>Dr. D. Rathnakumar</b> Assistant Professor Of Special Education (Intellectual Disability) CSI College Of Education With Special Education, Pasumalai, Madurai – 625004</p>	<a href="#"><u>115-123</u></a>
18	<p><b>Language Development Of Children With Hearing Impairment Through Animated Instruction</b></p> <p><b>Dr. C. Renuga Devi</b> Assistant Professor Department Of Education Mother Teresa Women's University, Kodaikanal -624101</p>	<a href="#"><u>124-132</u></a>
19	<p><b>A Case Study On Liliane School For The Mentally Retarded</b></p> <p><b>A. Sasikala</b> Ph.D Research Scholar Mother Teresa Women's University, Kodaikanal</p>	<a href="#"><u>133-150</u></a>
20	<p><b>Stress Of Teachers Handling The Students With Disability At School Level</b></p> <p><b>Dr. P. Ponnusamy</b> Assistant Professor Department Of Education The Gandhigram Rural Institute Deemed To Be University, Dindigul District, TN Pponnusamy56@Gmail.Com</p> <p><b>Dr. A. Sathiyaraj</b> Assistant Professor Department Of Education The Gandhigram Rural Institute Deemed To Be University, Dindigul District, TN Edusathiya@Gmail.Com</p>	<a href="#"><u>151-157</u></a>
21	<p><b>A Study On Community Based Rehabilitation Of Persons With Disabilities With Special Reference To The Initiatives Of Welfare Services, Ernakulum</b></p> <p><b>*Semichan Joseph</b> Research Scholar, Department Of Social Work , Bharathidasan University, Tiruchirappalli.</p> <p><b>**Dr. D Nirmala</b> ,Assistant Professor, Department Of Social Work , Bharathidasan University Tiruchirappalli</p>	<a href="#"><u>158-163</u></a>

22	<p align="center"><b>Effect Of Total Communication Approach (TCA) On Communication Skills Among Children With Multi Sensory Impairments (MSI)</b></p> <p align="center"><b>Sini.A.O</b> (Research Scholar, CMR University, Bangalore, India.) SEN Teacher Trivandrum International School, Kerala</p>	<u>164-177</u>
23	<p align="center"><b>The Challenges Faced By Differently-Abled Tribal Children: A Study with Special Reference To Palakkad District Of Kerala State</b></p> <p align="center"><b>Sinoj Joseph</b> Phd Scholar Department Of Physical Education And Health Science Alagappa University, Karaikudi</p>	<u>178-185</u>
24	<p align="center"><b>Disability And Women In Society</b></p> <p align="center"><b>*K.Vaishnavi</b> Phd (Part Time)-Research Scholar, Madurai Kamaraj University &amp; <b>**Dr. Meena Kumari</b> Research Guide -Head And Assistant Professor, Department Of Sociology, Fatima College</p>	<u>186-191</u>
25	<p align="center"><b>A Study On Parenting Stress Of Parents Of Person's With Cerebral Palsy</b></p> <p align="center"><b>*Dr.D.Nirmala</b> Assistant Professor , Dept. Of Social Work, Bharathidasan University, Trichy <b>**Dr.R.Sridhar</b> Adjunct Faculty,Dept. Of Social Work, Alagappa University, Karaikudi)</p>	<u>192-199</u>
26	<p align="center"><b>Community Based Rehabilitation For Persons With Differently Abled- An Analysis</b></p> <p align="center"><b>Dr.N.Rajavel</b> (Assistant Professor, Dept. Of Social Work, Bharathidasan University, Trichy)</p>	<u>200-210</u>

27

**A Study on Assistive Technology Devices for Differently Abled Persons**211-219**\*M. Prabavathy**

Assistant Professor, Centre for Differently Abled Persons, Bharathidasan University,  
Tiruchirappalli, India

**\*\*P.Kannan**

Guest Lecturer, Centre for Differently Abled Persons, Bharathidasan University,  
Tiruchirappalli, India

**\*\*\*R. Nandhakumar**

Guest Lecturer, Centre for Differently Abled Persons, Bharathidasan University,  
Tiruchirappalli, India

## Socio-Economic Conditions of Disabled Persons in Puducherry Region in the Union Territory of Puducherry

Dr. Annamalai Jegan

### Abstract

*Disabled persons have seen a only object of charity. They are under-estimated and over-protected and their potential and abilities are not recognized. Because of that they face barriers to the education, employment, health, marriage life, non-discrimination and equal treatment on par with others. On the other hand, the state has been taken various policy initiatives for the development of disabled persons, how it could be help them to enter into mainstream of the society. In this situation, this paper focuses on socio-economic conditions of the disabled persons and also impact of policy measure to betterment of disabled persons of their own life and social environment.*

**Keywords:** Deformity, disabled persons, Puducherry, socio-economic conditions

A disabled person is found in any society and nation. In world population, 10 percent of population is disabled person. There are 500 million disabled men, women and children in the world. Of the total of disabled persons, there are two types, firstly in born nature and secondly, accidental, disaster and natural calamities. They are physical, mental or sensory impairment and cannot partake in the normal activities of day-to-day life. They are inactive, immobile, non-interact and non-participation with social environment.

In India, around 10-15 per cent of population is having one or more kind of disabilities. They are considered to be inactive, immobile, wasteful and last citizen of the Nation. They are also largely denied access to economic resources such as job opportunities, sustainable wages, and are also not given chance for self-employment due to several socio-economic and political barriers.(Pooja Singh,2014). It is a social attitude of our communities and social environment. This conditions are to be removed and abolished, they have actively participated socio-economic activities of our economy. This participation of disabled person economic activities is not only self-reliant point of view and also increasing ration of Human Development Index.

The socio economic conditions of a society are intimately connected with its economic position that depends on rights, roles and opportunities for participation in economic activities. The

socio economic status of the disabled respondents is now recognized as an indicator of the society, stage of development to the disabled persons. Therefore, it has become imperative for the government to frame policies providing them rights, roles and opportunities to disabled persons, and their betterment of living condition in particular and society in general.

### **Related literature: A review**

In the prevalence of disabilities do not avoidable, at the sametime they are not neglected in the society. We must help to disabled person for fully participated in all socio-economic aspect of the society (Baquer and Sharma, 1988). In contrary, Ahuja(1989) argued that disabled people are not wait Government and agencies to betterment of their living conditions. They are to be face against all problems in our day-to-day life in the society. Sands and Kozleski (1994) has examined that similarities and dissimilarities between adults with and without disabilities to investigate on the dimensions of quality of life. They found that there is difference between two group such as marital status, opportunities, to make choices, as well as in the extent of social networks and social activities.

Disabled people are neglected by politicians, bureaucrats, government and society. They are a minority, but they are an invisible minority that neither is seeing nor heard a minority without a voice. So that the government is need to provide socio-economic security to the disabled population. Otherwise, the country cannot take or development and progress without leaving 6 per cent population (Javed Abidi, 1999). Poverty is both a cause and consequences of disability, poverty and associated factors reinforce each other, contributing to increased vulnerability and exclusion.(DPID Report, 2000).

Socio-economic conditions of elderly persons and disabled persons has examined in the State of Benin. Disabled persons to meet their enormous needs, the disabled resort to begging or degrading activities provide them with little income.(Arouna, 2002). Consequently, Yoda (2002) discussed about challenges to contemporary policies on disabilities, with a view to identifying what needs to be done to enable people with disabilities to live independently, as citizens in their local community. There is needed social security programme for disabled people. The programme of social security is to guarantee income maintenance or income support, the condition of disabled person, is some different (Madhava Rao, 2003). Dyer (2003) argued that the situation of disabled people and of how best to positive and effectively work towards enabling changes of the social and economic exclusion

of the significant group of people in our society. Effective implementation of a social model of intervention means with strategies that are required to remove the barriers preventing inclusion of disabled people

Shelten Hunt and Brandon Hunt (2004), Leutar and Raič(2008) studies examine that how changing the attitude of normal people against persons with disabilities at work place through effect of a brief education intervention. It indicates that the educational intervention had a significant impact on both participants' knowledge levels and their attitudes. Eckes and Ochoa (2005) examines that challenges students with disabilities face in college, reviews, relevant case law regarding the transition for students with disabilities from high school to higher education, and provides suggestions to assist high schools and universities in forging programs to better serve students with disabilities. Scarborough and Gilbride (2006) explained that how school and rehabilitations counselors can work together more effectively to meet the needs of students with disabilities.

Hasegawa (2007) find that an employment quota approach in Japan is able to secure positive effects within certain parameters, but is characterized by an inadequate perspective on the equal treatment of people with disabilities and on prohibitions against their discrimination, and lacks a sense of association between disabilities and job performance. Kruse *et.al.*(2010) have conducted occupational projections for people with disabilities for the year 2008-2018 through Census data. It shows that people with disabilities tend to be underrepresented in the fastest growing occupations, lowering their projected overall employment growth. Stephen Kaye (2010) argued that job losses among workers with disabilities far exceeded those of workers without disabilities. This labor market volatility resulted in the proportion of employed U.S. workers identified as having disabilities declining by 9 percent.

Sonpal and Kumar(2012) has argued about that disability continues to remain at the core of underdevelopment, and yet has failed to attract due space in mainstream development processes despite the paradigm shift in conceptualizing disability from the bio-physical medical model to a social model with work premised in a rights-based approach. Likewise Singh (2014) found that although Indian constitution and legislations have provisions for equal rights but disability remains as an axis of social discrimination and inequality. Disabled people get limited opportunities to participate in mainstream social, political and economic activities, thereby having less chances of empowerment.

Powers (2016) has conducted exploratory research on heterogeneous education output measures of students with and without disabilities. The result suggest that it may be valuable to include information on the diverse educational services provided in public schools in order to generate an education output measure that reflects historical changes in the mix, cost, quality, and growth of these services over time.

Cohen and Prahova (2006) had conducted the study on gendered living arrangement among Children with disabilities. Hebbeler and Spiker(2016) has reviewed effective ways to support development and learning among young children with disabilities, including language and social skills interventions, preschool curricula, instructional and other practices, and multi-tiered systems of support. As the results of two study suggests that gendered living arrangements among children with disabilities are a neglected aspect of inequality in caring labor, which is an underpinning of gender inequality in general.

Every society is having disabled community. However, they are neglected and unrecognized in the society. They are faced lot of problem even basic needs in their family and society. They are not equal treated on par with others. Social attitude of that people, they are useless and wasteful citizens. Therefore, the study of disabled person in respect of socio-economic conditions and policy measures which are directly and indirectly influence the people of the society in general and particularly, betterment of the living conditions of the disabled persons in the society. So there is needed study on these aspects of socio-economic conditions of disabled persons. To fulfill this gap, the study on socio-economic conditions of disabled persons in Puducherry.

### **Problem of the Study**

Disabled People have seen as only object of charity. They are under estimated and over protected and their potential and abilities are not recognized. Because of that, they face barriers to the education, employment, health, marriage life, non-discrimination and equal treatment on par with others. On the other hand, the state has been taken various policy initiatives for the development of disabled persons, how it could be help them to enter into mainstream of the society. In this situation, socio-economic conditions of the disabled persons are very difficult because of their inability to perform duties as expected from a normal man. They are highly depending on their family and society. Therefore, this study on disabled person is of having greater relevance and importance.

### Objectives of the Study

The major objectives of the study are to understand the socio-economic conditions of the disabled persons in Pondicherry region of the Union Territory of Pondicherry, more specifically.

- (i) To study the Socio-Economic conditions of the disabled persons.
- (ii) To study the nature and extend of socio-economic problems faced by disabled persons
- (iii) To study the accelerated and realized rights to disable persons.
- (iv) To study the possible positive policy measures to the disabled persons.

### Methodology

This study is based on descriptive and quantitative method approach. It consists of both primary and secondary data. Secondary data have collected from Directorate of Social welfare, Department of Women and Child Development, Government of Puducherry and Directorate of Census Operations, Puducherry, and also books, journals, official records, discussion paper, international and national reports etc.

The basic objective of study is to have analyse the socio-economic conditions of disabled persons in Puducherry region, it has been concentrated on the determining variables like type and extent of disability, level of education, occupation, income, saving pattern, marital status, and social participation and other needs which are all contributes to the overall socio-economic condition of disabled persons.

Primary data have collected both rural and urban area with help of Anganwadi centre and staff who are providing the basic level of information of disabled persons in local. A pre-tested questionnaire was prepared, tested and used for this purpose. Using interview method the researcher directly collected the required information from the sample respondents. The information provided by the Social Welfare Department, Pondicherry formed our sample frame, from which the sample respondents were chosen at random. As per sample frame, 100 sample respondents from rural area and 100 samples from urban area. The samples were select after stratifying it into rural and urban divide and gender specific divide. This would enable us to understand the problem from a broader perspective. The data collected put into regress verification with the ground realities. The collected data analyzed with the help of simple ratio and percentage method.

A limitation of the study is that the present study carried on only in the Puducherry region which is happened to be the capital of Union Territory of Puducherry. Therefore, excluding its findings to other regions may have due to the difference in objective condition prevailing in different region. Scope of the study is to have provided necessary information for the scholars, experts, policy makers in order to build up necessary policies regarding the development of living conditions of disabled persons. In addition, this study will be a base for future researchers to widen their research. Therefore it is very useful to the betterment of living condition of the disabled persons.

### Major findings and Discussion

In order to examine the above mentioned objectives, simple ratio and one way and two ways method was employed with stratification of region (rural and urban) and gender specifically. This study is purely based on primary data, collected from disabled respondents. The study has taken hundred sample respondents from both rural and urban areas (50 samples from each) of the Union Territory of Pondicherry particularly from Pondicherry region. The major summaries of finding are as follows:

The study shows that the study, male disabled persons are greater than female respondents both in rural and urban area as per indication of secondary data. Maximum numbers of male disabled are coming under the age-group of 49-49 and female disabled are under the age group of 18-29, it is 29 and 31 per cent respectively. The prevalence type of disability reveals that the highest type of disability both male and female respondents in movement (51% and 49%). Likewise, the least number of types of disabilities in speech, both male and female is 40 %t and 60 %t respectively. Out of the total, 66 % of disabled persons are Backward and Most backward Classes and 21 % of Schedule caste and tribes and 13 % of forward class people. Almost disabled persons are Hindus in the sample.

Family size and type of family are influencing the living condition of the disabled persons. In the small size of joint and nuclear families, disabled are taken care. Nevertheless, large size of joint and nuclear families not care about the disabled person for their basic needs. The study reveals that all disabled persons are living with family only. They are not begging and living in platform. Incidence of disability of the respondents, of the total 70 percent of disabled are by birth, 10 percent by accident, and 20 percent by old age of disability.

Level of education of the disabled respondents is not markable. Of the total 50 percent are illiterates and 50 percent are literates. Of the total educated respondents, 90 percent have got education up to higher secondary level and reaming 10 percent have studied degree level.

Socio-economic characteristics of the disabled respondents represent that employment opportunities, Income generation, saving potential, debt position and property and assets. Employment position of the respondents is indicating the economic status of the disabled respondents. Out of total 70 percent are un-employed and 30 percent are employed. Of the total employed, 60 percent are male disabled and 40 percent are female employed. It reveals that occupation pattern of disabled respondents, such as, Agriculture labour, causal labour, business, trade, government and self- employment. It indicates that male disabled are getting more employment opportunities than the female respondents.

In rural disabled persons are more active than urban disabled persons. Because they move, form one place to another and to communicate with normal persons. They have attempt to get a job opportunity for their survival. It is helpful to livelihood and social interaction with normal respondents. However, urban disabled people living ideally within four walls and no communicate with neighbours, and other social surroundings. They are ready to work and not given opportunity to them.

Basic livelihood of disabled person is determined by government assistance to them. The government providing financial assistance is the main source of livelihood. In the sample, 92 percent of disabled persons are getting financial assistance, 10 kg rice per month and dress per annum. Out of the total beneficiaries, male disabled and female disabled are 96.36 percent and 86.67 percent respectively. It is remarkable achievement of the Government of Puducherry, around 90 percent of disabled people receiving all benefits from government. However, they are simply received all the benefits from the government and handover it to their family member. Then they are ideally living in within four walls. They are not any other source of income from property. Generally, disabled do not have any property of their name and even they have share of ancestral property, it was denied. Because of their family members are not ready to give the share of the property to the disabled respondents. And they also not ready to purchase new property of their name. Out of total, there are few disabled person holing small part of land.

Economic factor of disabled persons is determined by their job opportunities and level of income. Most of the disabled people come under the monthly income range of less than Rs.1000/- per month. Out of this male and female are 54.50 percent and 45.50 percent respectively. They are getting a work at 8-10 days per month as a casual labour and receiving the wage rate of Rs. 70 per day. The second maximum number of disabled respondent's income range is between Rs.1000-5000.

The study reveals that 82 percent of disabled respondents are not having saving capacity due to lack of their income potential and only remaining 12 percent of disabled respondents are having saving habits. It reveals that that female disabled is having more saving habits than male disabled. Although female disabled are not aware about proper banking system. They are save their money with their neighbours and relatives. Around 70 percent of disabled respondents didn't get loan/debt from neither public nor private due incapability to repay the loan. Remaining 30 percent disabled are borrowing from neighbours, friends, landowners and relatives. A very few number of disabled respondents are got loan from the government. It shows that they are unaware about special loans for disabled persons through National Handicapped Fund Corporation. Not only that and also they are unaware about various welfare schemes given to them by the state.

Result of the study that around 60 percent of disabled person are not care about their health conditions. Disabled children in the age group of 1-15 are caring by parents. They are regularly consulting both government and private clinic. Parents of disabled children are suffering lot due to taking care of their child. They are spending more money to the child to recover the deformity. It is highly indicates that in the case of children of mentally retarded, cerebella plassy.

Social conditions of the disabled persons examined that marital status of disabled in the under the age group of 18-40. Of the total, male disabled are married comparatively higher than female disabled persons. Of the total, there is only around 20 of disabled persons are participated actively social activities such as social service association, disabled association, women's association and political parties. It indicates that majority of disabled people are inactive, immobile and under-participate social environment.

The result of the study examines that social economic condition of disabled persons in all aspects given important to be gender role. Disabled respondents are not homogeneous group. Disabled women facing certain unique disadvantages compared with disabled men, such as difficulty fulfilling

expected gender role and difficulties in accessing rehabilitation services. Women disabled are staying in least priority of certain basic needs such as food, health, education, gainful employment, marriage life and social participation. As a result shows that social opportunities of women disabled are fully neglected and restricted greater than male disabled.

This study clearly found that the government is prominent role for welfare of the disabled persons in the state. It provides welfare policy measures such monthly financial assistance, 10 kg rice, dress, free bus pass etc. to the disabled persons. All these assistance is pre-dominantly help the livelihood of disabled persons in the state. Otherwise, they could be living pathetic conditions. While the government has not treat disabled people as a dependent. The disabled persons are not able to do fully visualized employment. But they can capable of doing certain self-employment. Therefore, the government can be taken a policy measure for the empowerment of the disabled persons in the state. Disable people should not be considering as pond; they are the main stream of the society.

### **Conclusion**

To conclude that from the study of Socio-economic condition of disabled respondents is found to be poor. The reason is that of their poor physical capacity or deformity. Disabled respondents are highly depending in their family. They are over protected, neglected and unrecognized of their potential by the family members and society. It leads to barriers to get education, employment, marriage life, social participation and basic communal right of the disabled respondents. In the disabled community, women disabled are more problem than male disabled persons. Woman disabled respondents facing various problems rather than the male disabled respondents in their day-to-day life.

The major sources of disabled persons are to be monthly finance assistance and other assistance from the government. However, they are received benefit from the government and hand over it to the family members. Then, they are ideally live in home. The do not have any employment opportunity, income, saving, debt, property and assets. They are socially unrecognized and economically backwardness in the society. They are being treated as burden, incapable, unable by the family member, society and government. The government has to take to the empowerment of disabled living conditions. Family members, NGO's and society should come forward to render the service for their betterment of disabled socio-economic conditions.

### Policy Implications

The result of the study suggest that (i) there is needed a separate survey has to be identifies ever-increasing aged disabled population and is need to change policy measures to the aged disabled population. (ii) The government can conduct awareness programmes to disabled persons and their parents/guardian for about what are the available of welfare schemes for disabled person in the state.(iii) the government has to create self-employment opportunity to disabled persons, it will lead to generate their income (iv) The Government can provided nutritious food to child and aged disabled persons through Anganwadi centre.(v) Self help groups and other social organisation has compulsorily enrolled disabled men or women like representation of SC/ST. They should be equally treating on par with normal persons, it will lead them to take participate in social activities.

### References

- 1) Suresh. C Ahuja (1989) “The role of disability persons themselves and their families in the equalization of opportunities for disabled person”, presented at the International Meeting on Human Resources in the Field of Disutility, Tallinn, 14-22 August 1989.
- 2) Javed Abidi (1999) “We (disabled people) must learn to exert ourselves”, Disability Awareness in Action”, Newsletter No.74, July 1999.
- 3) Richard V. Burkhauser, Robert H. Haveman and Barbara L. Wolfe (1993), “How People with Disabilities Fare When Public Policies Change”, Journal of Policy Analysis and Management, Vol. 12, No. 2 (Spring, 1993), pp. 251-269.
- 4) Deanna J. Sands and Elizabeth B. Kozleski(1994), “ Quality of Life Differences between Adults with and without Disabilities”, Education and Training in Mental Retardation and Developmental Disabilities, Vol. 29, No. 2 (June 1994), pp. 90-101.
- 5) “Report on Disability, Poverty and Development” by UK Department for International development (DFID) Report – volume 38 No.1 – IHF Official Journal February 2000.
- 6) HiroeYōda (2002), New Views on Disabilities and the Challenge to Social Welfare in Japan”, Social Science Japan Journal, Vol. 5, No. 1 (Apr., 2002), pp. 1-15.
- 7) Dyer. S (2003) “The inclusion of Disabled people in Mainstream micro Finance programmes”, Manchester April 2003, Disability and IMF.

- 8) Suzanne E. Eckes and Theresa A. Ochoa (2005), "Students with Disabilities: Transitioning from High School to Higher Education", *American Secondary Education* Vol. 33, No. 3 (Summer 2005), pp. 6-20. Published by: Dwight Schar College of Education.
- 9) Janna L. Scarborough and Dennis D. Gilbride (2006), "Developing Relationships with Rehabilitation Counselors to Meet the Transition Needs of Students with Disabilities", *Professional School Counseling*, Vol. 10, No. 1, Special issue: Examining Disability and Giftedness in Schools (October, 2006), pp. 25-33.
- 10) Philip N. Cohen and Miruna Petrescu-Prahova (2006), "Gendered Living Arrangements among Children with Disabilities", *Journal of Marriage and Family*, Vol. 68, No. 3 (Aug., 2006), pp. 630-638.
- 11) Tamako Hasegawa (2007) "Equality of Opportunity or Employment Quotas? A Comparison of Japanese and American Employment Policies for the Disabled," *Social Science Japan Journal*, Vol. 10, No. 1 (Apr., 2007), pp. 41-57.
- 12) Megan Brophy, Xiaofei Zhang and Huiyun Xiang (2008), "Injuries among US Adults with Disabilities", *Epidemiology*, Vol. 19, No. 3 (May, 2008), pp. 465-471.
- 13) Zdravka Leutar and Natalija Raič (2008), "The influence of some socio-demographic characteristics of young people on their attitudes towards people with physical disabilities", *SEER: Journal for Labour and Social Affairs in Eastern Europe*, Vol. 11, No. 4, Social security reform and disadvantage (2008), pp. 517-538
- 14) Douglas Kruse, Lisa Schur and Mohammad Ali (2010), "Disability and occupational projections", *Monthly Labor Review* (October 2010).
- 15) Stephen Kaye (2010) "The impact of the 2007-09 recession on workers with disabilities", *Monthly Labor Review* (October 2010), pp. 19-30.
- 16) Deepa Sonpal and Arun Kumar (2012), "Whose Reality Counts?": Notes on Disability, Development and Participation", *Indian Anthropologist*, Vol. 42, No. 1 (January - June 2012), pp. 71-90.
- 17) Pooja Singh (2014), "Persons with Disabilities and Economic Inequalities in India", *Indian Anthropologist*, Vol. 44, No. 2 (July-December 2014), pp. 65-80
- 18) Susan G. Powers (2016), "Heterogeneous education output measures for public school students with and without disabilities", *Monthly Labor Review*, (September 2016)

- 19) Kathleen Hebbeler and Donna Spiker,(2016),”Supporting Young Children with Disabilities”,  
The Future of Children, Vol. 26, No. 2, Starting Early: Education from Pre Kindergarten to  
Third Grade (Fall 2016), pp. 185-205.

## Enhancing Psycho-Social Behavior of Children with Autism and ADHD through Interactive Video Games

**Dr.M.Prabavathy**

Assistant Professor and Head, Centre for Differently Abled Persons, Bharathidasan University,  
Tiruchirappalli-620023

**Sivaranjani.R**

Research Scholar, Centre for Differently Abled Persons, Bharathidasan University,  
Tiruchirappalli-620023

### Abstract

*In spite of recent advancements in early diagnosis, interventions, and rehabilitation, the outcome for expected behavioral characteristics of children with Autism and ADHD are still poor, with only considerable persons able to live independently when they reach adulthood. Working with these children, their teachers, and other stakeholders and as a part of our research on computer-based interventions with the goal of promoting social skills., we have set of activities based Video games that are flexible in their structure and capacity was tried out. Video games are used in many fields to educate children, to improve decision making capabilities and to increase IQ level. Structured Computer games can enhance both mental and physical components, train particular abilities, instruct players about occasions and wonder in our reality, investigate and comprehend characteristic human procedures, and they can be intended for various different purposes. Different studies have exhibited the impact of computer games on physiological and psychological levels both positive, negative, for children with special needs and their normal. This paper proposes the effectiveness of interactive video games in improving socio-behavioral characteristics of five autistic children. Our perceptions from this study proposes that these exercises can be expanded as educational practices, involving, joint effort and coordination, enlarged gratefulness for social exercises, and gave kids novel types of expression.*

**Keywords:** computer based interactive video games, Psycho social behavior, Autistic and ADHD

## Introduction

Autism spectrum disorder (ASD) and autism are both general terms that denotes a group of complex disorders of brain development. These disorders are characterized, in varying degrees, by difficulties in social interaction, verbal and nonverbal communication and repetitive behaviors. The Diagnostic and Statistical Manual of Mental Disorders (DSM IV), describes autism with the point of reference attributes that are apparent with the individual's inability to create peer connections, absence of engagement in play with companions, absence of feeling acknowledgment, troubles in open co operations, and for the most part poor social abilities. Further, DSM-5 diagnostic manual publication made in May 2013, has merged all autism disorders into one umbrella diagnosis of ASD. Previously, they were recognized as distinct subtypes, including autistic disorder, childhood disintegrative disorder, pervasive developmental disorder-not otherwise specified (PDD-NOS) and Asperser syndrome.

Children with Autism and ADHD are particularly affected by the impairment that is evidenced by their difficulties in reciprocal social interaction skills (American Psychiatric Association 1994). Individuals with Autism and ADHD display marked impairment in the use and interpretation of nonverbal behaviors, such as eye to eye gaze, facial expressions, body posture, and gestures to regulate social interaction. In addition, individuals with Autism and ADHD often fail to monitor the effect of their conversations or behaviors on other people. For example, they frequently monopolize conversations or walk away while others are trying to interact with them (Bailey 2001). This result in inability to interpret nonverbal communications provided in facial expressions and body posture. The ability to recognize emotions in others is a crucial component of social development, Impairment in this skill severely reduces the child with autism's ability to participate in or interpret social interactions.

A considerable amount of intervention research has focused on developing successful procedures for improving communication in children with autism. These interventions has given emphasis on improvement in verbalization, length of utterance, and spontaneity of language use, but may also result in decreases in challenging behavior, increases in positive effect, and higher levels of joint attention (Tentori M, Hayes G (2010)).

In spite of the way that all individuals with ASD are depicted by these inadequacy in social and vernacular aptitudes, signs of Autism and ADHD is depicted uniquely in every individual (Tager-

Flusberg and Joseph 2003). For instance, one individual might need practical discourse totally (i.e., as is regular in low-working a mental imbalance) while another might have superb dialect capacities (i.e., as is normal in Asperger Syndrome). Both, in any case, all persons with Autism exhibit deficiency in socio-behavioural abilities. Innovation, including assistive technology and computers assisted teaching, ought to cater to the educational and social needs of persons with autism

### **Computer based instruction for children with autism**

The utility of Computers in examination and treatment of autism is perceived at an early stage (e.g., Colby 1973; Picard RW (2009). Nonetheless, it has not been until recently as of late that Computers have turned out to be generally and modestly accessible to all people and analysts (Ploog 2010a). Moreover, in recent years there has been quantum jump in the advancement of computer based varying media (sight and sound) innovations. Approaches that were inconceivable a couple of years back are currently well inside the span for all the population (e.g., applications on iPhone /iPod/ iPad by Apple, Computers Kinect by Microsoft). This specialized and financial pattern has further potentiated the utility of Computers in the remediation of children with Autism and ADHD.

Computer games as a CAT approach can possibly be produced into remediation apparatuses (Leonard A (2007). LaCava et al. (2007) likewise utilized the Mind Reading programming to prepare eight youngsters with Asperger Syndrome to perceive essential and complex feelings in PC introduced voice and face boosts. This study speaks to an expansion of Golan and Baron-Cohen (2006) on the grounds that the Mind Reading programming was currently appeared to be compelling in kids, and additionally in grown-ups, and there were huge enhancements from pre-to post-mediation in measures like those utilized by Golan and Baron-Cohen (2006). As a useful symptom, the partaking youngsters observed the PC system to be fun, engrossing, and showed great aptitudes in working the PC amusements.

In computer based games, children interact with intelligent, semiautonomous virtual characters (embodied agents) in socially realistic situations. The agents inhabit a sensory garden a multi-modal 3D environment filled with interactive objects that can become the focus of (joint) attention between them and the child. Children can manipulate the environment through touch, via a large (4200) multi-touch LCD display. The interaction between the child and the agents is facilitated by a combination of learning activities that are designed around specific learning goals that relate to

different forms of joint attention and free exploration of the environment. The computer vision component models and tracks the child's face and head pose automatically and uses the facial features to detect the child's smile (Grynszpan, O., Martin, J., & Nadel, J. (2007). Information about child's facial expressions is used to estimate the child's emotional state and focus of attention.

Virtual reality (VR) has been used to provide training in social situations that many with Autism and ADHD's find overwhelming, such as finding a place to sit in a crowded canteen [Mitchell P, Parsons S, Leonard A (2007) and going shopping. Other technologies include robots that imitate human movements, in order to provide 'robot friends' for children with severe, low-functioning autism (LFA), who often shun human-to-human contact entirely. Digital play environments have been used to provide affect-free, audio-visually stimulating digital play environments, which are extremely popular with children with Autism.

### **Need for the study**

Children with autism often encounter difficulty with social interactions, communication challenges, and also the tendency to engage in repetitive behaviors, with symptoms ranging from mild to severe. The characteristic symptoms of Autism and ADHD place barriers for the child to function optimally in an educational and social setting on communication, behavioral, and cognitive level. A range of difficulties are observed in children with autism and ADHD such as having trouble transitioning between tasks and organizing tasks, motor difficulties, difficulties with written expression and abstract reasoning, slow work pace, disengagement, and problems initiating, sustaining, or maintaining relationships with classmates. As a result, children with autism and ADHD are being secluded their normal classrooms and peer groups. In this era of computers, Fun and interactive computer based video games can help children with autism manage and overcome stress, anxiety and poor concentration. The interactive video games help the children interact with a family of bright and colorful characters that teach them important coping skills to help them manage social situations. Based on this understanding, the researcher realized socially interactive video games could simulate the real world to help the children with autism to practice empathy and understanding toward other people and accept the concept of change.

## Objectives

1. To enable the children to accept the concept of “Change” and “Different” through video games.
2. To enable the children to understand the “opinion” and “feelings” of others
3. To enable the children to understand and display empathy towards themselves and others.
4. To facilitate the children to recognize the emotions of others.
5. To enable the children to understand and use non-verbal gestures.
6. To enable the children to group objects sequentially.
7. To foster the child’s ability to make eye contact.

## Methodology

Five children who are pursuing certificate course in office automation were selected for the study. The following games used to meet out the objectives. The online games used in this study were taken from <http://www.autismgames.com.au>. The games used were:

### A. Going to school

The aim of 'Rufus goes to School' was to help children with autism cope with change. The game does this focusing on a typical school on school day and introducing changes such as driving with different people, interacting with classmates and changes to routine such as the car breaks down and Rufus and his dad needing to catch the bus to school. The game emphasizes the keywords; 'change' and 'different' and the notions that change is necessary and that change can be fun. The aim of using this game is to enable the children to understand and to use these keywords, accept and cope with changes in routine.

### B. Transactions

The aim of this game was to help the autistic children to get along with other children by considering the opinions and feelings of others. The idea of being considerate from taking turns.

### **C. Matching Emotions**

Facial expressions, other body language, verbal intonation and responses reflecting emotion are all often misunderstood or not understood at all by children with autism. As a result, inappropriate responses to situations occur, for example, laughing or giggling when someone is hurt or upset. These traits affect social relationships and may cause anxiety and behavioural issues. The focus of this game is to foster an understanding and display of empathy and appropriate emotions of one's self and others

### **D. Recognize emotions**

This game helps children with autism to recognize emotions. The game integrates 3D animations and a real persons face, to communicate the emotion that the character is feeling. Robbie the Robot is a mechanical character on a journey to find his missing hat. Many autistic children find mechanical objects engaging and by combining this with a real human face. The aim is for the child to practice indentifying emotions in a non-confrontational environment that they enjoy. The game reinforces the following keywords, which can be used as a tool by parents and teachers for encouraging positive behaviours in real life situations; 'happy', 'sad', 'angry', 'surprised'.

### **E. Nonverbal Gestures**

For conveying information, people often rely on the addressees to use their previous knowledge to link information related to the task at hand. Young people with autism do not do this as readily and benefit from 'extra' nonverbal gesturers to be included or embedded with the primary spoken information. This would mean in real world actions to include signing actions such as moving your palm forward at the same time as saying stop and images or symbols to illustrate the point better. This games helps the children to practice these gesture in a playful way.

### **F. Grouping Objects**

Grouping objects is an important skill, particularly for lower functioning children who have autism. This games aims to create a platform where the children can generalize a skill in a range of setting before the skill can be mastered.

## G. Making Eye Contact

Children with Autism have difficulty in maintaining appropriate eye contact or eye gaze with communication partners. This game teaches the child that they have to look at someone to communicate, and that if someone is looking at them, they should respond correctly by looking back. The game does not demand eye contact by insisting 'look at me' but makes it a gradual process. The large eyed Teddy bear characters are super cute and non confrontational. The game reinforces the following keywords that parents and teachers can generalize into real world situations; look, looking, eyes.

The study was conducted for a period of 3 months in which children were allowed to play the games as reinforcement for completion of their assigned task. IEP for the desired objective was done and monitored.

## Results

The case study revealed that there is a significant improvement in the children's ability to accept the concept of "Change", appreciate the "opinion" and "feelings" of others, understand and display empathy towards themselves and others, recognize and respond to the emotions of others and enhanced eye contact. The games also fostered the children's ability to understand and use non-verbal gestures and the children were able to group objects sequentially. Nurturant effects of the intervention were seen in the child's interest shown in communicating with others and their interest in operating and interacting with computers.

## Conclusion

Technology improvements have been helping us to improve our day-to-day life as well as pave the way for improving the needs for children with special needs. The children with autism and ADHD are emotionally incapacitated. On the other hand technologies always have solution for every problem. Good games deal with players in the initial game levels with problems that are specifically designed to allow players to form good generalizations about what will work well later when they face more complex problems. Often, in fact, the initial levels of a game are in actuality hidden tutorials. Work in cognitive science has shown that people need to be presented with problems in a fruitful order, getting initial problems that set up good generalizations for later problems. Motivation

is the most important factor that drives learning. Cognitive science describes “motivation to learn”, as a learner’s willingness to make an extended commitment to engage in a new area of learning. Since good games are highly motivating to children with autism, desired behaviour occurs with the help of carefully selected nonaggressive video games. Therefore, the present study show a requirement for increased mindfulness and usage of computer games for the emotional and social nurture of children with autism.

## References

- 1) American Psychiatric Association (2000). Diagnostic and statistical manual of mental disorders. (4th ed.). Washington, DC7 Author (text revision).
- 2) American Psychiatric Association. (2000). Diagnostic and statistical manual of mental disorders (4th ed., text rev.). Washington, DC: Author.
- 3) American Psychiatric Association. (2013). Diagnostic and statistical manual of mental disorders (5th ed.). Washington, DC: Author.
- 4) Bailey, K. J. (2001). Social competence of children with autism classified as best-outcome following behavior analytic treatment. Dissertation Abstracts International: Section B the Sciences and Engineering, 61(12-B), 6696.
- 5) Colby, K. (1973). The rationale for computer based treatment of language difficulties in non-speaking autistic children. *Journal of Autism and Childhood Schizophrenia*, 3, 254–260.
- 6) Golan O, Baron-Cohen S (2006) Systemizing empathy: teaching adults with asperger syndrome or high functioning autism to recognize complex emotions using interactive multimedia. *Dev Psychopathol* 18(2):591–617
- 7) Jimmy Or, “Affective Computing Focus on Emotion Expression, Synthesis and Recognition”, Croatia, I-TECH Education and Publishing, 2008.
- 8) LaCava, P. G., Golan, O., Baron-Cohen, S., & Myles, B. S. (2007). Using assistive technology to teach emotion recognition to students with Asperger Syndrome. *Remedial and Special Education*, 28, 174–181.
- 9) LaCava, P. G., Rankin, A., Mahlios, E., Cook, K., & Simpson, R. L. (2010). A single case design evaluation of a software and tutor intervention addressing emotion recognition and social interaction in four boys with ASD. *Autism*, 14, 161–178.
- 10) Mitchell P, Parsons S, Leonard A (2007) Using virtual environments for teaching social understanding to 6 adolescents with autistic spectrum disorders. *J Autism Dev Disord* 37(3):589–600
- 11) Picard RW (2009) Future affective technology for autism and emotion communication. *Philosophi Trans R Soci B Biol Sci* 364(1535):3575–3584

- 12) Ploog, B. O. (2010a). Educational computer games and their applications to developmental disabilities. In F. Edvardsen & H. Kulle (Eds.), Educational games: Design, learning and applications (pp. 281–297). Hauppauge, NY: Nova Science Publishers, Inc.
- 13) Rajendran G, Mitchell P (2000) Computer mediated interaction in Asperger's syndrome: the bubble dialogue program. Comput Educ 35(3):189–207
- 14) Tager-Flusberg, H., & Joseph, R. M. (2003). Identifying neurocognitive phenotypes in autism. Philosophical Transactions of the Royal Society of London B, 358, 303–314.
- 15) Tentori M, Hayes G (2010) Designing for interaction immediacy to enhance social skills of children with autism. In: Proceedings of the 12th ACM international conference on ubiquitous computing 2010, Copenhagen
- 16) <http://www.autismgames.com.au>
- 17) <http://www.whizkidgames.com>
- 18) <http://www.autismvictoria.org.au>

## My Ability is stronger than My Disability

**Ms. Manju**

Lecturer English

Directorate of education, New Delhi

**Dr. Karamvir Singh**

Mentor Teacher

Directorate of education, GNCT of Delhi

10% of population lives with a disability & 80% of these people in developing countries. The services available for people with disabilities differ widely between developed & developing nations. One of these services is "Education".

After independence in 1947, GOI created several policies in terms of Spl. Edu. from constitution to Kothari Commission to the 2005 Action Plan for children & youth with disabilities & the 2006 National Policy for people with disabilities recently. But the need to bridge the gaps to fulfill 'Education for All' is equally relevant even today in 2017.

Statistics on disability in India vary widely & accuracy of statistics is always questionable since still many families do not reveal the truth if they have any children with disabilities in the family. They feel neglected from the mainstream society. However, we come across many differently abled people who have a set a benchmark for every one. Let's begin with AMIT KUMAR SIROHA.

1. Amit Kumar Siroha : Arjun awardee, parlympian, Asian Para games medalist, competing in the FSI category in club throw and discus throw. Amit, born in Haryana on Jan 12, 1985 met an accident causing him to be quadriplegic. This sort of mishappening could have been enough to shatter dreams for an ordinary person; but not a national level hockey player, as he used to be.

Inspired by "Jonathan Sigworth" a U.S. Wheel chair's rugby player and after meeting him on a tour of India of the later Amit decided to venture into world of para shorts and never looked back. Here is a glimpse of his International Achievements.

S. No.	Name of event	Year	Venue	Medal
1.	Asian Para Games	2010	Guanzhou China	Silver (Discus Throw)
2.	Asian Para Games	2014	Incheon Kore	Gold (Cub Throw) Silver (Discus Throw)
3.	World Championship	2015	Doha	Silver Medal
4.	World Para Athletics Championship	2017	London	Men's Club Throw -F51 Silver Medal

Apart from that Amit Siroha trains at SA 1 in Sonipat, Haryana and is a motivational speaker too.

## 2. Rinku Hooda

People Like Amit Siroha are capable of motivating Rinku Hooda; whose left arm was trapped in a paddy sowing machine at the age of 3 but was able to grab silver medal at world U 20 Para Athletics Championships. Born in a village 'Dhamas' near Rohtak in Haryana, Rinku started participating in regular school running events and bagged gold medals in 200m & 400m events at district & state level. Later a visit to Rajiv Gandhi Stadium in Rohtak introduced Hooda to Javelin Throw and he won his first national medal – a silver at the senior Para National in 2013. He watched Amit Saroha playing in 2012 London Para Olympics and after a meeting with later decided to go for the same. Amit Saroha not just only motivated but coached Rinku for consecutive 3 years. Now Rinku has an eye on Asia Gold. We wish him all the best.

## 3. Mariyappan Thangavelu and Varun Singh Bharti

"Indian National Anthem was played at Rio de Janeiro after Mariyappan Thangavelu won gold medal in Men's High Jump T42 event alongside Varun Bharti who won bronze in the same event."

- Indian Express

India's lone Olympic Gold Medalist 'Abhinav Bindra' welcomed Mariyappan to the Gold Medal Club. Born in a poor family in a village of Salem district Tamilnadu he is one of six children to his parents. The family abandoned by the father was raised single handedly by 'Saroja' his mother who worked as a laborer in the initial years and later on as a vegetable vendor. At the age of 5, Mariyappan was run over by a bus driver, on his way to school leaving permanent disability in his right leg. But this set back could not stop him to achieve what he deserved. Being keenly interested in sports; initially volleyball was encouraged by his physical education teacher to try high jump. He never looked back. Recognized, picked & trained by his current coach Mr. Satya Narayana Mariyappan cleared for Rio Paralympics at IPC Grand Prix in Tunisia. He won the gold medal in Men's High Jump T 42 event with a leap of 1.89m.

With a marginal difference i.e 186 m put Varun Singh Bharti at 3rd position but this doesn't make one's achievement lesser when he has been afflicted by Poliomyelitis at young age. Varun Joined Sports during school days at St' Joseph School Greater Noida. Having Completed in Maths (Honours) from Maharaja Agarsen College, University of Delhi, he is also trained by Mr. Satya Narayan, a former national athlete. Varun currently trains at sports Authority of India in Bangalore. Apart from Bronze in Rio Paralympics and world Para Athletics Championship, London he grabbed Gold Medal in China Open Athletics Championship. There are miles to go for these jumpers.

## 4. Deepa Malik

What would we call a person who overcame a spinal tumor, 31 Surgeries and 183 Stitches to win India a silver medal at Paralympics (Rio). Yes, when asked to choose between paralysis and death, Deepa Malik delivered Paralympics Silver at the age of 46 in women's shot-put F.53 event. She is the first India women to win a medal in Paralympics history. Deepa has never been daunted by adversity. When told as a 26-year old that her choice was between paralysis and death, anyone else

would have had a meltdown. A budding Sportswoman and Cricketer for Rajasthan despite suffering paralytic shocks since the age of 8, Deepa however faced the impossibility of life head on.

Broken vertebrae, frequent MRI Scans couldn't stop her from taking to throwing the Javelin in 2006. Then it became the shot-put, the event that has given her Paralympics Glory in Rio. She has also been conferred Prestigious Padmashri in 2017, Arjuna Award in 2012. She has won 58 national and 18 international medals across all disciplines till date.

She is the first person ever to receive a license for modified rally vehicle, first challenged individual to receive an official license from Federation Motor Sports Club of India (FMSCI) in Raid-de-Himalya 2009 & Desert Storm 2010 – The toughest car rallies of the country. Salute to this motorist, biker and perseverate athlete.

These are the real life stories of grit and determination that we can possibly have along with many other such examples all over the country. Life comes with its own challenges but none of them can claim one's spirit.

Social factors are the most important in shaping one's personality traits. The schools are far ahead in providing opportunities to read, learn and write. They encourage the development of social competencies at the same time. Schooling occurs in the context of the society at large; therefore, it must be conducive for every section of the society. Inclusive schooling is both a belief and practice where all children learn in their local schools in classes with students of their own age. This should encompass all students with disabilities, gifted students, children from a wide range of social & cultural background, and more. Inclusion should also include children from disadvantaged groups of all races & cultures. They must provide facilities & infrastructure.

Inclusive education is not simply about placing all students in class rooms without attending to their individual strengths, needs and individual learning requirements it does not demand that all students learn the same thing at the same time, in the same way and it is not the sole responsibility of the class room. It's the need of the hour to be considered, acknowledged and valued upon altogether to make other Amit..s,Rinku..s and Deepas.....

Erwin States, "The true essence of inclusion is based on the promise that all individuals with disability have a right to be included in naturally occurring setting activities with their neighborhood, peers, siblings and friends. Everyone benefits from Inclusive Education in some way."

## Desideratum Constitutive and Constructive Exigencies for Inclusive Education in India

**Dr. Anshu Mathur**

Head, School of Liberal Arts, Noida International University, Gautam Budh Nagar, UP, India

E Mail: dr.anshumathur@gmail.com

### **Abstract**

*Inclusive Education is real mean of an inclusive society by accommodating, regarding and accepting diversity. The constitution of India ensures equality, freedom, justice and dignity of all individuals and implicitly mandates an inclusive society for all including persons with disabilities. There has been an increasing recognition of abilities of persons with disabilities and emphasis is laid on mainstreaming them in the society based on their capabilities. The concept of inclusion has emerged from the ideas of providing equal opportunities to 'all' children keeping in mind the diverse nature of their individual needs. Teacher competency is also a factor in determining success of any educational program. Therefore this paper explores significant factors that might affect teacher's role in an inclusive Education.*

### **Introduction**

The constitution of India ensures equality, freedom, justice and dignity of all individuals and implicitly mandates an inclusive society for all including persons with disabilities. In the recent years, there has been increased awareness of the society towards persons with disabilities. It has been realized that the majority of persons with disabilities can lead a better quality of life if they have equal opportunities and effective access to rehabilitation. There has been an increasing recognition of abilities of persons with disabilities and emphasis on mainstreaming them in the society based on their capabilities. Education is a dynamic process and continuous process of reconstruction of human experiences. There are different kinds of systems of education: inclusive education is an important aspect which is a partnership between differently abled adults and the parents of differently abled children. The 86<sup>th</sup> amendment of the constitution of India ensures right to education to every child. Education of differently abled children has seen a paradigm shift from segregated education in separate schools to inclusive education in regular school along with non-differently abled children.

Inclusive education is based on the principle that school should accommodate all children regardless of their physical, intellectual, emotional, linguistic and other condition.

### **Inclusive Education and the inclusion of all**

Inclusion is elaborated as providing equal opportunities to ‘all’ with the diverse personality of individuals and their needs. The dictionary says ‘inclusion’ is-to take in, or consider as part. The meaning of inclusive education is to provide excellent teaching practices, healthy relationships between teacher and students, to improve the quality of education for all children in a classroom and help the development of all children in different ways. All kids could be able to do well when the regular classroom environment shall be adjusted to meet their individual needs (*Swarup, 2000*). Inclusive education not only provides equal opportunities to the differently able but also helps to non-differently abled pupils to share with peers who are different in one way or another and to learn, to accept and respect their “differences”. Thus, the inclusion of the differently abled in the society is a progression of two directional: first is to prepare differently abled to become part of the society and secondly to prepare society to receive them.

### **Inclusive School**

“An inclusive school is a place where everyone belongs, is accepted, supports and ‘is supported by his or her peers and other members of the school community in the course of having his or her educational needs met” (*Stainback, Stainback and Forest, 1989*). It means all children and all schools include everyone and everywhere. Inclusion is a perception of effective schools where every child has a place to study and teachers become facilitators of learning rather than providers of information (*Mani, 2003*). Inclusive educational practices are helpful in respecting diversity and make sure the commitment of justice of the rights of individuals with disabilities.

### **Constitutive and Constructive Exigencies for Inclusive Education in India and its Educational framework**

**Corporeal Inclusion:** Regulated by the government. All the policies and regulations have made education free and compulsory for all children. No institution can deny admission to a child with disability on account of his/her disability. The Universalisation of Elementary Education (UEE) focuses on enrolment, retention and achievement of all children.

**Community Inclusion:** Society is the most important place to accommodate all. (*Bhan, S., Mehta, D. And Chaproo, Y., et al*) stated that the lower socio-economic strata have a greater acceptance of persons with disabilities with minimum expectations from them. (*Das, 1999*) has suggested that Inclusive Education is not a soft process; it requires a lot of struggle and commitment to overcome all types of barriers mainly attitudinal and social Education and awareness can bring change in attitude of people in society and could directly affect the inclusion in society with time in all strata of people.

**Inclusion in learning environment:** Education system needs to incorporate all children with special educational needs to study in general classrooms with non-differently abled children. It can be different teaching strategies, small or parted subject matter, better learning environment and facilities. Each child is given equal opportunity to learn, understand, retain, and reproduce the information at an appropriate time and in appropriate manner. (*UNESCO, 1994*) suggested that school must know and take action to the diverse needs of their students, accommodating both different styles and rates of learning and ensuring quality education to all through appropriate curricula, organizational arrangements, teaching strategies, resource use and partnership with their communities. (*Mathur A, 2013*), emphasized on inclusive efforts in the study of mentoring process in the development of professional in the field of education.

#### **Economic support for inclusion**

Special Needs Education needs financial support and well organized funding arrangements. It is the most desirable thing to meet the expectations from system and to provide adequate educational services for students with disabilities in inclusive schools. Insufficient financial conditions are the major obstacles to the implementation of Inclusive Education in many places. *Das (1999)* has also revealed in his study that, funds are the real limitation to run Inclusive Education Programs.

#### **Teacher's outlook towards inclusive education**

(*Padeliadu and Lampropoulou, 2006*), have argued that attitudes of teachers toward the inclusion with special needs is the major concern for success of this program. Studies suggested that attitudes towards inclusion had been found negative. Some of the studies indicated an wholehearted and dedicated attitude of teachers towards to the development and implementation of inclusive school practices (*Padeliadu and Lampropoulou 2006*).

### Teaching skills

The number of trained special educators is also limited. (*Rehabilitation Council of India, 1996*) states that the number of trained special education teachers is extremely small considering the number of children with disabilities that require their services. These include literacy skills like reading, arithmetic, writing, spelling and study skills as required for especially able children. (*Myreddi & Narayan, 2000*) have revealed that the institutions, which did offer special education training to upcoming teachers in their teacher training programs, fail to train teachers adequately to work in integrated settings. There is dearth of training in the areas like, Classroom management and developing skills in selection of appropriate techniques to manage individuals and group behavior. It requires proficiency in techniques of behavioral analysis, group altering, gliding transitions, materials arrangement and crisis intervention. Guidance, counselling and communication are the other most required competence in ways to consult and communicate with these professionals. Teachers should know how to collect and report the type of information that will be most useful to the specialists. Teachers should be able to interact successfully with the parents, siblings, and children. They should be able to interact and collaborate with others in the school.

### Resources for inclusion

Common Indian schools are not at all designed to meet the needs of students with disabilities. Few have some infrastructure and required facilities. The lack of disability friendly transportation services and accessible buildings are considered by some to be far greater problems than social prejudice and negative attitudes (*Chatterjee, 2003*). Orientation strategies for entry in to mainstreaming could be able to prepare special students as well as regular class for mainstreaming. This also includes preparing parents of all children for normalization. S/he should be able to develop positive attitudes towards mainstreaming. Resources management is the task for teachers and it should be given to be used for instruction of differently abled children. Having all resources in system may bring development among the normal and differently abled children in inclusive schools and the ultimate goals of inclusive school will be attained.

### Conclusion

Policy makers, Think tank and policy implementers should recognize and take into account the diverse needs of their country people, adaptation of successful models of different countries, school

organization and studies may help in planning of winning inclusive system. Philanthropy and mutual aid is the most important concern in this area. International and national exchange of efforts can make remarkable difference in the educational system of India. The present paper has highlighted the grey areas and suggested growth and relevance of inclusive education in India.

## References

- 1) Das, A.K., & Pillay, A.N. (1999, December). *Inclusive Education for disabled students: Challenges for teacher education*. Paper presented at the 5<sup>th</sup> UNESCO-ACEID Conference, Bangkok, Thailand.
- 2) Karna, G.N. (1999). *United Nations and rights of disabled persons: A study in Indian perspective*. New Delhi: A.P.H. Publishing Corporation.
- 3) K Yadav, HK Khandai, A Mathur ,(2011),Innovation in Indian Education System Shipra Publication, New Delhi,Pg.67
- 4) Mani, M.N.G.(2003) "Inclusive Education in India-Policies and Practices" The Educator Jan-June
- 5) Mathur A,(2013),A Study of mentoring process in the development of professional in the field of education,international journal Golden research thoughts, ISSN No: 2231-5063, RNI: MAHMUL/ 201138887 , October,2013.(Pg. 1-4)
- 6) Myreddi, V., & Narayan, J. (2000). Preparation of special education teachers: Present status and future trends. *Asia Pacific Disability Rehabilitation Journal*, 10(1), 1-8.
- 7) NCERT (2000) Assessment of needs for inclusive education, Asia pacific Region.
- 8) Neena Dash (2006) Inclusive education for children with special needs. Atlantic publishers (p) Ltd, NewDelhi.
- 9) Padeliaadu,S. & Lampropoulou,V. (2006),Attitudes of special and regular education teachers towards school integration, Pages 173-183 Published online: 09 Jul 2006, retrieved from <http://www.tandfonline.com/doi/abs/10.1080/0885625970120301?JournalCode=rejs20>
- 10) Swarup, S.(2000) "Inclusive Education", Sixth Survey of Educational Research, 1993-2000, Vol I, NCERT, 197-211.
- 11) UNESCO (1994). The Salamanca statement and framework for action on special needs education. Paris, UNESCO.

## Benevolence of Aiadm Government for Specially Abled

**Dr.R.Anthony Raj,**

Asst. Professor of History, L.N.Govt . College, Ponneri-601 204

### Abstract

*The AIADMK Government is committed to the all round development of the specially abled persons. The State Government's endeavor is to create an inclusive society by integrating the specially abled persons in the mainstream. Several innovative schemes have been introduced to prevent and the government also provides a number of comprehensive welfare measures to different categories of specially abled persons. Special schools, centers for hearing impaired, early intervention centers, scholarships, mobile therapy units, and employment opportunities are some of the benevolent measures of the AIADMK Government.*

**Key Words:** AIADMK, Specially abled, special schools, employment, scholarship, benevolence

### Introduction

The AIADMK Government is committed to the all round development of the specially abled persons. Towards achieving this goal, the State Government created a separate department for the specially abled persons during 1993. As a pioneering step, the Government also formulated a comprehensive welfare policy during 1994. The State Government was honored with the National Award for the Best State for empowering specially abled persons during 2013-14. The State Government's endeavor is to create an inclusive society by integrating the specially abled persons in the mainstream by eliminating all kinds of barriers causing hurdles in their overall development. Several innovative schemes have been introduced to prevent and control the occurrence of disabilities and their after-effects. Many steps have been taken to access the rehabilitation services by the community. Newly enacted "The Rights of persons with Disabilities Act, 2016" has expanded the scope for ensuring the rights of specially abled persons by including more categories. This paper lists the various efforts of the AIADMK Government's Welfare measures for the specially disabled.

As envisaged in Section 19(2) of the above Act, the Government of Tamilnadu is providing vocational training to 1000 specially disabled persons through skill development corporation at a cost of Rs. 50 Lakhs as a initial step as per G.O.(Ms) No. 67, Labor and Employment Department dated 12.4.2017.

### **Issue of national identity card and pass book**

Tamilnadu has 11.79 lakhs specially abled persons and most of them i.e. (99%) have been provided with disability certificate and national identity card which are the basic documents for all the specially abled persons to get benefit under various welfare schemes.

### **Recognition of institutions working for specially abled**

Nearly 1000 special schools, institutions, psychiatric rehabilitation centers, hearing impaired diagnostic centers, early intervention centers etc have been started in various parts of the State at a cost of more than 350 lakhs have been provided during 2017-2018.

### **Mobile therapy unit**

Specially abled children in the age group of 0-6 years along with their escorts find it difficult to reach the early intervention centers which are located in the district headquarters. In order to help such children, 32 mobile therapy units are deployed throughout the State at a cost of Rs. 4.49 Crores. A sum of Rs. 99.48 lakhs has been provided in the budget estimate for the year 2017-2018.

### **Homes for mentally ill persons**

A sum of Rs. 286.58 lakhs has been provided in the budget estimate for the year 2017-2018 for these homes located in the various districts.

### **Scholarship**

The specially abled children are given free education. Scholarship is provided to them to meet their incidental expenditure during the course of their education and the amount provided varies with the standard and also with reference to the UG courses, professional and other courses. A sum of Rs. 700 lakhs has been provided in the budget estimate for the year 2017-2018 for this scheme. The fact

that there are 60.66% literates to total specially abled in Tamilnadu (as per Census 2011) proves the AIADMK's Government commitment. **(1)**

Apart from the above Rs.79.87 lakhs for Readers' Allowance, Rs.39.84 lakhs for scribe Assistance are also provided for specially abled by TN Government during 2017-2018.

Free Uniforms, Text Books are also provided for specially abled at a cost of around 20 Lakhs during 2017-2018. Laptop Computers, DVD players, Cash incentives to prevent drop-outs, etc are also provided. **(2)**

### **Training programmes**

The specially abled are experiencing many disadvantages in the labor market. A decent job would support them to overcome poverty. **(3)** To facilitate this, following training programmes are being imparted for the specially abled persons enabling them to acquire knowledge and skills in various trades free of cost:

- a) Multimedia and digital photography training to the specially abled persons at a cost of Rs. 21.75 lakhs in 2017.
- b) Fitter Training at a cost of 0.75 lakhs during 2017-2018

### **Ensuring employment opportunities for the specially abled persons through reservation**

The Government provides job opportunities to the specially abled persons by ensuring reservations in jobs for them in Government departments/Government undertakings and other Government agencies. Recently, Government has issued orders to implement 4% reservation in employment in Government, Public sector undertakings, Boards, Corporations and Educational institutions. An expert committee has also been formed for identification of Group 'A' and 'B' posts suitable for the specially abled persons. In March 2014, orders were issued to fill-up the 1928 backlog vacancies meant for specially abled persons in various departments. Till Feb 20, 2016 nearly 5633 specially abled were given employment in government public sector undertakings.

### **Skill training to specially abled persons**

In accordance with Tamilnadu vision 2023 which envisages the skilling of youth in Tamilnadu, 1000 specially abled persons have been selected for skill training so as to ensure job placement in public and private sectors at a cost of Rs. 50 lakhs during the year 2016-2017.

### **Job placement in private sector**

The Government is taking special efforts to organize job fair exclusively for placing the specially abled persons in private organizations. During the year 2016-2017, as many as 966 specially abled persons have been placed in various organizations.

### **Micro enterprises and bunk stalls**

The specially abled persons are motivated for establishing self-employment ventures and micro enterprises by the department. They are assisted to avail loans from the nationalized banks. A subsidy of Rs. 10,000 or one third of the loan amount, whichever is less, is given to the specially abled persons to start self-employment ventures/enterprises. During 2016-17, a sum of Rs. 1.20 Crores has been allocated to benefit 1200 persons. A sum of Rs. 80 lakhs has been provided in the budget estimate for the year 2017-2018 for this scheme. (5)

### **Unemployed youth employment generation programme**

In order to provide employment opportunities, bank loan is given to the specially abled persons for setting up of self employment enterprises. 5% share amount to be paid by them as margin money is borne by the State Government as grant. To avail this concession, they submit applications to the District authorities – Welfare Offices and District Industries Centers. During the year 2016-2017, a sum of Rs. 13 lakhs was spent to benefit 122 specially abled persons. A sum of Rs.15 lakhs has been provided in the budget estimate for the year 2017-2018 for this scheme.

### **Unemployment allowance to the specially abled persons**

As part of the social security for the unemployed specially abled persons in the age group of 18 years and above, unemployment allowances are given based on their educational qualifications and

should have registered and available in the live register of the employment exchange for a minimum period of one year. In 2016-2017 24,556 specially abled persons have been benefitted at a cost of Rs. 22.66 Crores. A sum of Rs. 2267 lakhs has been provided in the budget estimate for the year 2017-2018 for this scheme.

### **Social security**

The Government is providing financial support in the form of maintenance allowances for the severely affected loco motor, leprosy affected, mentally retarded and muscular dystrophy affected persons. A sum of Rs. 25,486.27 lakhs have been provided for the year 2017-2018 for this purpose. Assistive devices to the specially abled persons like wheel chairs, goggles, folding sticks, Braille watches, hearing aids, solar rechargeable batteries, calipers, crutches, artificial limbs, tricycles etc at a cost of Rs. 75 lakhs have been provided in 2017-2018. Retrofitted petrol scooters have been given to 1017 persons at a cost of Rs. 598.64 lakhs and in 2017-2018, 2000 persons are to be distributed at a cost of Rs. 599 lakhs. Travel concessions in state owned buses, marriage assistance schemes, rescue schemes; day care centers are also available.

### **Tamilnadu welfare board for the specially abled persons**

Tamilnadu Welfare Board has been reconstituted by including new members in March 2017. The Board implements personal accident relief for death with compensation of Rs. 1 lakhs etc. Assistance for marriage, delivery, miscarriage, etc is also taken care of. A sum of Rs. 100 lakhs has been provided in 2017-2018.

### **Other welfare measures**

Government rehabilitation homes for Leprosy patients, homes for adult mentally retarded, financial assistance to NGOs, Government care camps for beggars, fixing auditory signals at traffic junctions for the benefit of visually impaired, health insurance schemes etc. are other welfare measures of the AIADMK Government.

### **Conclusion**

The specially abled persons though are hidden away, stigmatized by the public; the AIADMK Government's efforts make meaningful attempts to assimilate them in the mainstream of the nation's

life. The policies of the AIADMK Government thus have been largely adequate and effective to cater to the needs of the specially abled, Tamilnadu accounting 4.4% of India's share of specially abled as per Census 2011. The AIADMK Government had touched the lives of the specially abled and ensured their wellbeing by good governance and development,

### Endnotes

- 1) Government of India, Social Statistical Division, Jan. 2017 Report of Disabled Persons in India- A Statistical Profile 2016.
- 2) TN Government portal
- 3) Oct. 9, 2012, The Deccan Herald
- 4) Deccan Chronicle, Feb 21, 2016
- 5) Department of Specially abled persons, Govt. Of Tamilnadu, Policy note 2017-2018.

## **A Co-relational Study between Social Media and Self-esteem of Specially Abled Students**

**Dr. Arvind Sharma**

Associate Professor & Coordinator, Department of Mental Retardation, Faculty of Special Education,

**Dr. Shakuntala Misra**

National Rehabilitation University, Mohaan road, Lucknow-226017 (UP)

### **Abstract**

*Specially Abled students are often stigmatized for their difference from other students (Ditchman, Werner, Kosyluk, Jones, Elg, & Corrigan, 2013) and need the support from their perceived networks to maintain psychological well-being (Uchino, 2006). Common usages of social media, and its relative novelty, are related to an emergence of new psychological and social phenomena. The purpose of this quantitative study was to explore the relationship between disability, social media usage (Facebook) and the psychological well-being of specially abled students studying in higher education. The results of the descriptive correlational analysis and linear regression indicated that there was not a significant relationship in the amount of Facebook friends specially abled students had and their reported level of well-being. It also indicated that specially abled students who spent more time on Facebook reported lower self-esteem. The results indicated that there was not a significant correlation between the overall Facebook Intensity Scale to examine whether there was unique effect on psychological well-being.*

### **Introduction**

Social networks are those social relationships between people (Heaney & Israel, 2002) who share some common denominator; these individuals may visit or share a workplace and typically include friends, family, and peers. Popular social media such as Facebook has been called as the public display of connection and give people opportunities to satisfy the need to socially identify with others, who share similar interests and are often comprised of their closest friends and peers. Online social networking uses synchronous or asynchronous electronic modes to mediate communication and offers tools for cultivating and preserving relationships, which are imperative in phasing into adulthood (Steinfeld, Ellison & Lampe, 2008). Many individuals join social networking sites to keep

in contact with family and friends and to make new friends (Gangadharbatla, 2008). Social networking sites allow those who encounter hardships or stressful situations, such as the death of a loved one, chronic illness, new baby, divorce and other life changes, to connect. Online social networks are distinctive in that they allow the user to be able to review contacts and make social networks visible (Steinfeld, Ellison, & Lampe, 2008). According to Seeman (1996), those who have social ties via the web tend to be more socially integrated and have a record of better mental health than those with few social ties. Social ties are especially important for those with disabling conditions.

Social networking sites provide an avenue for participation for people with disabilities and may be an important means of communication due to challenging social situations. Online communication offers individuals the opportunity to present themselves positively, benefitting those with difficulties picking up social cues, and limited conversation skills, which affect 75 percent of individuals with specific learning disabilities (Kavale & Mostart, 2004; Kavale & Forness, 1995). Online social networking sites may aid younger adults with low self-esteem more than young adults with higher self-esteem (Steinfeld, Ellison, & Lampe, 2008) by providing a convenient way for individuals with low self-esteem to participate with others outside their offline personal networks (Tazghini & Siedlecki, 2013). Social networking sites like Facebook may act as a buffer for those who may be socially awkward and fear rejection because they are less able to converse, especially upon first meeting (Steinfeld, Ellison, & Lampe, 2008). Skillful management of online relationships may reduce negative face-to-face first impressions due to the uniqueness or lack of social skills of the individual with the disabling condition.

Online social networking sites may allow for the self-presentation of an individual with a disabling condition to be masked (Cromby & Standon, 1999) to avoid stigmatization. Facebook and other social networking sites may allow individuals the opportunity to decrease the fear of rejection (Steinfeld, Ellison, Lampe, 2008), which for young adults with disabilities can be an alternative to physical social interactions. There is considerable evidence that Facebook supports current social networks and improves psychological well-being (Yu, Tian, Vogel, & Chi-Wai Kwok, 2010). Social networking sites can boost one's self-esteem (Valkenburg, Peter, & Schouten, 2006), by providing social opportunities (Ellison, Steinfeld & Lamp, 2007). According to Kim and Lee (2011) these social occasions found through Facebook positively affected the user's psychological well-being.

Hence, this research explores the relationship between disability, social media usage (Facebook) and the psychological well-being of specially abled students studying in higher education. The following research questions are to be answered:

1. Will specially abled students with more friends on Facebook have higher self-esteem than those with fewer friends on Facebook?
2. Do specially abled students who utilize Facebook more often have higher self-esteem than those who use it less often?
3. What is the relationship between the Facebook Intensity Scale score and self-esteem of the specially abled students?
4. What is the relationship between the Facebook Intensity Scale score and self-esteem of the specially abled students with respect to gender?
5. What is the relationship between the Facebook Intensity Scale score and self-esteem of the specially abled students with respect to gender and age?

### **Methodology**

The researcher employed a descriptive correlational approach to answer the main research questions posed in the present study. 95 specially abled students (only physically challenged, Visual impaired and Hearing impaired) through random sampling were selected among 553 enrolled specially abled students from different UG, PG and Ph.D courses of Dr. Shakuntala Misra National Rehabilitation University, Lucknow, Uttar Pradesh. Among 95 disabled students, 57 were male and 38 were female. As for the instrument, the demographic questionnaire, the Facebook Intensity Scale, and the Rosenberg self-esteem scale were developed in conducting this research.

### **Results and Discussion**

The purpose of this study was to investigate the connections between Facebook usage and the well-being of the specially abled students of Dr. Shakuntala Misra National Rehabilitation University. The results of this study were used to examine whether a relationship between Facebook usage and self-esteem existed, and if there was a relationship, which variables impacted the others. The first research question sought to examine whether specially abled students with more friends on Facebook would report higher self-esteem. To answer this research question, a correlation analysis was used to explore the relationship between the two variables. The results did not indicate that there

was a correlative relationship between the number of friends and reported self-esteem. Based on the results of this study, there was a negative correlation between the number of friends on Facebook and reported self-esteem. As the scores for the total of friends increased, the scores for self-esteem decrease. The correlation between those two variables was  $-0.189$ . This relationship was not found to be significant at the  $\alpha=0.05$  significance level ( $p = .397$ ). Researcher has reported negative and positive finding related to the impact of having social connections on social networking sites like Facebook. Facebook can be a valuable resource for connecting with other people; however counselors and educators should be aware that having too many connections can have a negative effect on an individual's self-esteem. Lee, Moore, Park, and Park (2012) found that number of Facebook friends was related to self-esteem; those with lower self-esteem were more likely to have more friends, as suggested by the social compensation hypothesis.

The second research question sought to examine the relationship between the average time spent on Facebook and self-esteem. For this research questions, the researcher computed the correlations using both the Facebook Intensity Scale and the Rosenberg Self-esteem Scale. There was a negative correlation between the total amount of time spent on Facebook and reported self-esteem. The correlation between those two variables was  $-0.365$ . As the scores for amount of time spent increased the self-esteem of the specially abled student decreased. This relationship was found to be significant at the  $\alpha=0.05$  significance level ( $p=0.089$ ). The researcher found that those students who spent more time reported lower self-esteem on the Facebook Intensity Scale. Kalpidou, Costin, and Morris (2011) also found this to be true, reporting spending a lot of time on Facebook was negatively related to self-esteem, similar to these findings.

The third research question sought to examine the relationship between overall Facebook Intensity Score and self-esteem. For this research question the researcher computed the correlations using both the Facebook Intensity Scale and the Rosenberg Self-Esteem Scale. There was a negative correlation found between the relationship between the overall Facebook intensity score and reported self-esteem. The correlation between those two variables was  $-0.192$ . The researcher found that those who had a higher overall Facebook Intensity Scale score reported lower levels of self-esteem, demonstrating that as the scores for Facebook Intensity increased the self-esteem for specially abled student decreased. This relationship was found not to be significant at the  $\alpha=0.05$  significance level

$p=.356$ . According to Ellison, Steinfeld and Lampe (2007), individuals who report higher scores on the Facebook Intensity Scale could be attributed

to them having more opportunities to use it for collaboration than those who spend less time on social networking sites.

The fourth research question sought to examine the interaction of the Facebook Intensity Scale scores, the self-esteem of specially abled students, and gender. For this research question, a linear regression analysis was conducted. The correlation between the self-esteem of specially abled students and the best linear combination of the Facebook Intensity Scale scores and gender was approximately .3 ( $r=.3$ ). The R Square value is .083; which means that approximately 6% of the variance in self-esteem was accounted for by the Facebook Intensity Scale score and gender, which is a rather low percentage. The results from the linear regression showed that the combination of the Facebook Intensity Scale score and gender were not significant in predicting self-esteem ( $p=.376$ ,  $F=1.314$ ;  $df=2,93$ ).

The fifth research question sought to examine the interaction of the Facebook Intensity Scale score and self-esteem of the specially abled students with respect to gender and age. To answer this question, a linear regression analysis was conducted. The correlation between the self-esteem of specially abled students and the best linear combination of the Facebook Intensity Scale score, gender and was approximately .423 ( $r=.423$ ). The R Square value is .196, meaning that approximately 24% of the variance in self-esteem was accounted for by the Facebook Intensity Scale score, gender, and age. The results from the linear regression showed that the combination of the Facebook Intensity Scale score, gender and was significant in predicting self-esteem ( $p=.041$ ,  $F=4.12$ ;  $df=3,90$ ). This equation indicated that when Facebook intensity and age were held constant, there was a .321 increase in the self-esteem score for females. When the gender and Facebook Intensity Scale are held constant, there was a .95 decrease in the self-esteem score for every 1 unit increase in age. When the gender and age are held constant, for every 1 unit increase Facebook Intensity Scale score there is a .731 decrease in self-esteem. The T-test revealed that age was the only variable that was significant in predicting self-esteem independently ( $p=.01$ ).

## References

- 1) Arnold, P. & Chapman, M. (1992). Self-esteem, aspirations and expectations of adolescents with physical disability. *Developmental Medicine and Child Neurology*, 34, 97-102.
- 2) Baumeister, R. (2005). Rethinking self-esteem: Why nonprofits should stop pushing self-esteem
- 3) and start endorsing self-control. *Stanford Social Innovation Review*, 3, 34-41.
- 4) Cheung, C. M. K., Chiu, P-Y., & Lee. M. K. O. (2011). Online social networks: Why do students use Facebook? *Computers in Human Behavior*, 27, 1337-1343.
- 5) Gangadharbatla, H. (2008). Facebook me: Collective self-esteem, need to belong and internet self-efficacy as predictor of the igenerations's attitudes toward social networking sites. *Journal of Interactive Advertising*, 8(2), 5-15.
- 6) Gonzales, A. L., & Hancock, J. T. (2011). Mirror, mirror on my Facebook wall: Effects of exposure to Facebook on self-esteem. *Cyberpsychology, Behavior, and Social Networking*, 14, 79-83.
- 7) Rosenberg, M. (1965). *Society and adolescent self-image*. Princeton, NJ: Princeton University.
- 8) Steinfeld, C., Ellison, N. & Lampe, C. (2008). Social capital, self-esteem, and use of online social networks sites: A longitudinal. *Journal of Applied Developmental Psychology*, 29, 434-445.
- 9) Sharma Arvind (2016). *A Study of Impact of Self-portraits (Selfie) on Self Image of Disabled Students Studying in Higher Education*, International Journal of Education & Applied Sciences Research, Vol.3, Issue 06, pp 12-21

## ICT Innovations For Specially Abled

**T.Balasubramanian,**

Department of Education Alagappa University, Karaikudi.

**Dr.K.Govindarajan,**

Research Supervisor, Department of Education Alagappa University, Karaikudi.

### Abstract

*Today ICT has entered in every aspect of a human's life. On one hand where it has revolutionized and added values to the life of normal human beings, it has been proved to be a benefit for differently abled. The development of an educational technology curriculum aimed at primary education and undergraduates; the motivation is on the integration of ICT competences for inclusive education. In an educational technology curriculum, a competence structure was developed for development the use of ICT in the teaching of and learning by special needs learners. Inclusion is an important part of equal opportunity in education, the use of ICT in addressing special educational needs has, to date, been inadequate so far. Most hardware and software is designed for the normal population and does not pay sufficient attention to a wide range of aptitudes and to people with disabilities. Even though the current emphases on inclusion have stimulated much interest in using various ICT applications for integrating students with disabilities into the conventional school environment, the review of existing literature indicates a lack of attention to the application of ICT for people with special educational needs. ICT for special educational requirements assists the different types of disabilities with assistive technology. The analysis refers to conditions required for development ICT implementation in the curriculum, with regards to new demands for teaching and learning.*

**Key words:** Inclusive education, special educational needs, ICT environment for special educational needs.

### Introduction

Integration of developing ICT satisfied, subject and disciplines into the school curriculum leads to new curricular needs. ICT – based instructional environments, allows the formulation of a novel

repertoire of pedagogical solutions. The combination between ICT and learning modalities deriving from current theoretical frameworks has already resulted in innovative pedagogical and curricular solutions.

Information and communications technology usually called ICT, is used as a replacement for information technology (IT) but is usually a more general term that strains the role of communications in present information technology. ICT consists of all methodological means used to handle information and aid communication, including computer and network hardware as well as necessary software.

ICT for specially abled student provides improvements to or different methods of interaction with world. ICT stimulates greater individuality by enabling them to perform tasks that they were formerly unable to achieve, or had great difficulty achieving.

The use of ICT in talking special educational needs has, to date, been inadequate so far. Most hardware and software is designed for the normal inhabitants and does not pay sufficient attention to a wide range of capabilities and to student with disabilities. Even though the present prominences on inclusion have stimulated much interest in using various ICT applications for integrating students with disabilities into the conventional school environment, the review of existing works indicates a lack of attention to the application of ICT for people with special educational needs. ICT for special educational needs assists the different types of disabilities with assistive technology. The main hole is within development of learning environments and systems which simplify inclusion of persons with different types of disabilities.

Teachers are not aware of e-learning environments and their potentials for individualised instruction, exploratory environments, collaborative learning and facilitating social skills, individualised study plans. Classroom management for accommodating students with disabilities in the inclusive classroom. The use of online communication by individuals has become a most common activity, and that the internet and virtual environments have been highly integrated in the people lives, where young people with special needs are exposed and marginalised.

**Ict educational technology**

Living practice with first on planning, development and testing with project work and studying cases of ICT use in education. Study methods simplify gaining experiences to students to integrate them into their individual educational work. Technical competences in ICT use are obtained indirectly by students through developing the educationally improving common and subject – specific professional teaching competences. Preparing student teachers to use ICT in the process of dealing with variety in classroom accommodating a diverse group of students with variety of needs and integration of special educational needs students.

The Equal e-Learning – Students with Learning Difficulties Using ICT and Learning on the Web project was aiming at further developing, localizing and implementing the e-learning environment. The ICT system was developed for students with special learning needs in vocational education.

The e-learning environment caters for students with special educational needs which include a range of physical, communicational, emotional and cognitive disabilities, causing learning difficulties in reading, writing and observing. ICT provides the working environment, where tools are designed according to students' abilities. Clearly structured activities are absorbed on attracting learners and enhancing the student's motivation and independence providing the racing and monitoring of one's individual progress. Graphic interface design is provided in large and clear fonts, colour, symbols, pictures and speech so as to assist a variety of disabilities and special educational needs. Audio – instruction are included as well. The student interface is presented in the Equal e-Learning project was awarded for innovations which positively affect the lives of young disabled persons and help them adapt to education, working life and society.

**ICT for inclusive education**

Inclusive education means that all students in a school, regardless of their strengths or weaknesses in any area, become part of the school community. They are included in the feeling of belonging among other students, teachers, and support staff. Integral treatment of processes was based on the authentic cases from practice. Teacher – educator included and treated topic.

Presenting cases from practice:

The students developed an idea for ICT use for inclusive classroom, aiming at autonomy, inquiry, creativity and innovation. Students presented and discussed the idea with the other students in the group and with colleagues in their school environment.

Students designed lesson plan including learning objectives teaching and learning methods, cross – curriculum application, participatory production of learning materials with pupils. Students designed the learning materials required for dealing with the topic and incorporated them into the ICT learning environment. They involved their learners into the preparation of materials.

Any ICT based tool or service that is helpful in advancing student learning. Evidence – based applied technology derived from basic educational and psychological research enhances capabilities of exploring ideas, innovations and communicating.

#### **Benefits of ICT for inclusive Education are:**

- **Easy-to-access Course Material** – Multimedia easy to understand course material can be posted on web which learners can access at a time and location they prefer.
- **Motivation** - Computer-based instruction can give instant feedback to students and explain correct answers. Moreover, a computer is patient and non-judgmental, which can give the student motivation to continue learning.
- **Wide Participation** - Learning material can be used for long distance learning and are accessible to a wider audience.
- **Improved student writing** - Convenient for students to edit their written work which can, in turn, improve the quality of their writing.
- **Subjects made easier to learn** - Many different types of educational software are designed and developed to help users to learn specific subjects easily.

#### **Supporting inclusive Education through ICT implementation**

Inclusive education presents an opportunity for students with special needs to attend mainstream classrooms with their age-group peers. To realize this we need to provide for the relevant conditions of overcoming the barriers to the learning process. Particularly speaking, these conditions are attained

via the facilitation of ICT infrastructure for integration of ICTs into special needs education curriculum and training of ICT specialists.

- Identifying the preliminary level of personal development, experiences and skills that is to say the starting point of a student.
- Assisting in personal development by shaping new skills or updating existing ones;
- Improving the access to information;
- Overcoming geographical or social isolation via communication support and networks;
- Improving the image perception of an area by enhancing motivation and awareness regarding the ICT benefits in special needs education.

### **ICT innovative technologies for specially abled students**

The educational needs of people with disabilities are vastly diverse. They must, as their peers, get knowledge and skills required in the society in which they live. On the other, they have additional demands often referred to as special educational needs caused by functional limitations which effect learners' ability to access standard educational methods of instruction, therefore, prevent educational progress.

### **ICT and educational innovation**

In the information or knowledge period, in which endless information is available at the push of a button, and learning is universal, theoretical and realistic aspects have been examined regarding the impact of ICT on educational processes. ICT integration in education might affect schools irreversibly, contributing to transformation of teaching and learning processes and outcomes at different levels, meeting students' individual needs; providing rich instructional environments; affording the delivery of educational materials in ways that stimulate meaningful learning and motivates students.

ICT Innovation is change that conveys new ideas and an aspiration for improvement of an existing situation or resolution of a problem. The school's main goal is to supply the skills required to live and work in a world in continuous change. ICT, as a driving force behind the creation and evolvement of the information society. plays a vital role in this change, affecting both new technology-related

concepts and skills included in the curriculum, re-arranging the curriculum and general skills that is learning how to learn, acquiring generic knowledge-manipulation skills, teamwork skills.

### **ICT and curricular innovation**

The concept of curriculum is as old as education itself, however, the way we theorize and define it has changed over the years, raising considerable controversy as to its meaning and implications. The scope of the term is extremely wide nowadays, ranging from well-defined disciplines with clear taxonomies and methodology, to all planned instruction that the school is responsible for and the whole set of learning experiences supplied to the students

This breadth of scope is mainly due to the fact that curriculum is one of the pillars of the education system. The curriculum development and implementation process, leading to different perspectives regarding its nature: planned curriculum, enacted curriculum and experienced curriculum.

ICT, when implemented in a school, is perceived as innovations by itself, regardless of the content addressed in its use that is a skill or a concept), its function is part of a learning task or a communication tool, or its application scope. ICT – supported pedagogical innovations are pedagogical solutions and means supporting a shift from traditional educational paradigms towards emerging pedagogical approaches based on our current understanding of learning, such as fostering learner– centered and constructivist processes, and the acquisition of lifelong learning skills.

ICT innovative curriculum is much more than a technical development: it is a qualitative educational shift towards a new paradigm as a result of an ongoing process consequently, the innovative curriculum is a never-completed product, including new content, and novel and creative didactic processes and assessment solutions.

### **ICT – Assistive Technology**

Several initiatives that work socially and technologically in order to reduce the present void in access to information and communication technologies and networks for people with special needs.

Characterizes the level of community development being formed as a result of the combination of information, media and telecommunication including far-reaching organizational and institutional

changes in all aspects of human activity for example, workplace, leisure, shopping, commerce, education.

ICT for inclusion at assistive technology for two levels that is individual level, systemic or Institutional level.

### **ICT –individual level**

Assistive technology (AT) is any item, piece of equipment, service to product system whether acquired commercially on the shelf, modified or customized, that is used to increase, maintain, or improve functional capabilities of individuals with disabilities.

It can be a very complex and multifaceted field, yet in some cases be a relatively easy and creative problem solving process

Includes a range of technologies, which enable people to build on their abilities and participate as fully as possible at home, school, work and in their community.

- Assistive devices
- Content Delivery Systems
- Content generation & archiving
- Education

Braille. Pictorial communication. Large Print. Personalized environment

- Rehabilitation / inclusion

Physiotherapy, Beauty care, Call centre/Office Jobs, Bank, Court etc.

- Communication

Voice Commands, Descriptors, Large Print

### **ICT – Systemic or Institutional Level**

Any tool or service that is helpful in advancing student learning. Evidence – based applied science derived from basic educational and psychological research. Enhances capabilities of exploring ideas, innovations and communicating

### **Some ICT Assistive Technology to help Specially Abled in education includes**

- Braille Duplicators and Writer
- Group hearing Aid for classrooms
- Alternative & Augmentative Communication software/devices
- Multi- Sensory systems
- Tactile mathematical devices
- Tactile geography devices
- Tactile science devices
- Screen readers & magnifiers
- Assessment & evaluation to
- Models
- Multimedia content
- Content Development Software
- Word Bank & Prediction Systems
- Text-to-Speech Engines & Speech Recognition
- Special Access Switches & Mechanism
- Sign Language & Braille Learning Software etc.

### **Benefits of ict use in education of people with special needs**

- Enables greater learner autonomy;
- Unlocks hidden potential for those with communication difficulties;
- Enables students to demonstrate achievement in ways which might not be possible with traditional methods;
- Enables tasks to be tailored to suit individual skills and abilities.

### **Conclusion**

Learning environments and systems which prepare students with special needs for participation in information society adoptive implementation of the developing IC'T competences based on equal opportunities which is highlighted in the future objectives of Educational Systems. Creative and innovative ICT use in teaching and learning is preliminarily about changing approaches to teaching and learning. Creative practices of teaching using ICT include three interlinked factors that are creative processes of imagination and originality, the features of ICT for multimodal

presentation and communication and ICT capability as an expression of elements of higher order thinking – finding things out and developing ideas. ICT use for special needs pupils and ICT in teacher's professional development and learning. ICT usage in schools to support students with special needs education can enable learners to communicate, participate in lessons, and learn more effectively.

ICT have speedy development of information age brings possibilities and dangers to people with special needs. Those who unequal access to information run the risk of losing some of the most basic rights. There is a growing awareness that people with disabilities have the right to expect the same standard of service and access as every other member of the society.

### References

- 1) Acedo, C, Amadio, M. Operti, R. et al. (2008) (Eds.) Defining an Inclusive Education Agenda: Reflections around the 48th Session of the International Conference on Education. Geneva: UNESCO IBE African Information Society
- 2) Dede, C. (2000). Emerging influences of information technology on school curriculum. *Journal of Curriculum Studies*, 32, 281-303
- 3) Donnelly, V.J. (Ed.) (2010) Inclusive Education in Action: Project Framework and Rationale. Odense, Denmark: European Agency for Development in Special Needs Education
- 4) European Commission (2008) The use of ICT to support innovation and lifelong learning for all – A report on progress
- 5) Goodson, I.F. & Marsh C.J. (1996) Studying School values: a guide. London: Falmer Press.
- 6) Hayes, D. N. A. (2007). ICT and learning: Lessons from Australian classrooms. *Computers & Education*, 49, 385–395.
- 7) Marsh, C.J. and Willis, G. (2003). Curriculum: alternative approaches, ongoing issues (3<sup>rd</sup> ed.). Upper Saddle River, NJ: Prentice hall.
- 8) Mioduser, D., Nachmias, R., Forkosh- Baruch, A. and Tubin, D. (2004). Sustainability, scalability and transferability of ICT-based pedagogical innovations in Israeli schools. *Education, Communication and Information*, 4, 71-82.
- 9) O'Gorman, E. (2005). Setting Standards for Teacher Education in Special Educational Needs in Ireland. 30th Annual Conference ATEE. Amsterdam 22-26. October 2005. (pp. 377-381).

- 10) Soderstrom, S. (2009). Offline social ties and online use of computers: A study of disabled youth and their use of ICT advances. *New Media & Society*, 11(5), 709-727.
- 11) Williams, P. (2005). Using information and communication technology with special educational needs students: The views of frontline professionals. *Aslib Proceedings: New Information Perspectives*, 57(6), 539-553.
- 12) Williams, P., Hamid, R., Nicholas, J., Nicholas, D. (2006). Using ICT with people with special education needs: what the literature tells us. *Aslib Proceedings: New Information Perspectives*, 58(4), 330-345.

## Impact of Pilate's Exercises and Yogic Practices on Kyphosis Deformity among School Boys

**Mr. Bipin Das U R**

Ph.D Research Scholar (Regular),  
Department of Physical Education and Health Sciences,  
Alagappa University, Karaikudi.

### Abstract

*The purpose of the study was to determine the impact of Pilate's exercises and Yogic practices on kyphosis deformity among school boys. For this purpose, thirty (N=30) school boys of age ranged between 10 to 14 years having upper deformity of Kyphosis, from various schools in Thrissur District Kerala State Where selected as subject. The selected Kyphosis boys (N=30) where divided into three experimental groups of Pilate's exercises group (N=10), Yogic practices group (N=10), and Control group (N=10). If the subject had more than one deformity only the chronic defect among that would be given priority. The data were collected before and after the training period of 12 weeks. Spondylometer and tape are used to measure the postural deformity. The data obtained from the experimental groups and control group before and after the experimental period were statistically analyzed with 't'-test and Analysis of covariance (ANCOVA). Whenever the 'F' ratio for adjusted post test means was found to be significant, the Scheffe's Post hoc test was applied to determine the paired mean differences. The level of confidence was fixed at 0.05 for all the cases. The result of the study reveals that there is a significant improvement in the functional aspect of the Kyphosis, were found due to the influence of selected Pilate's Exercises, and Yogic Practices among the school boy's. The Yogic Practices group has been found to be better than the Pilates Exercises group, and Control group in decreasing deformities of the spinal column such as Kyphosis*

**Key Words:** Pilates Exercises, Yogic Practices, Kyphosis, spondylometer

## Introduction

Posture can be defined as “Any position in which the body resides.” As we are always in motion, even when we appear to be perfectly still, Posture is actually a fluid concept. Good posture is a series of shifts in position that make it possible for us to operate with no useless expenditure of energy, permitting optimal function of the entire body including the organs.

Good posture is help in kinetic sense. Study proposed examined the relationship between a motor skill postural and action components and balance while moving. The first experiment examined the influence of experience on the development of balance control strategies (stabilization of head in space) during locomotion given varying levels of task complexity. A qualified gymnast has a good posture. It had been proved that good gymnast has a good kinetic sense (*Marie, 2002*).

Concerted action of bones, joints and muscles direct all human movement, the three works together to operate a very efficient and effective system of motion and locomotion. This will discuss the bones and joints.

Any activity running, jumping, throwing, lifting, swimming requires its own variety of movements and creates its own stresses on the skeletal system. Over the short term and long term, the skeletal system responds and adapts to this stress. Adaptability has been designed into the human skeleton, so that structure affects function and function affects structure. In other words the makeup of bone its size, has to perform (*Simon & Schuster, 1992*).

## Methodology

The purpose of the study was to determine the impact of Pilate’s exercises and Yogic practices on kyphosis deformity among school boys. For this purpose, thirty (N=30) school boys of age ranged between 10 to 14 years having upper deformity of Kyphosis, from various schools in Thrissur District Kerala State Where selected as subject. The selected Kyphosis boys (N=30) where divided into three experimental groups of Pilate’s exercises group (N=10), Yogic practices group (N=10), and Control group (N=10). If the subject had more than one deformity only the chronic defect among that would be given priority. The data were collected before and after the training period of 12 weeks. spondylometer and tape are used to measure the postural deformity . The data obtained from the experimental groups and control group before and after the experimental period were statistically analyzed with ‘t’-test and Analysis of covariance (ANCOVA). Whenever the ‘F’

ratio for adjusted post test means was found to be significant, the Scheffe's Post hoc test was applied to determine the paired mean differences. The level of confidence was fixed at 0.05 for all the cases..

### Kyphosis

The analysis of dependent 't'-test on the data obtained Kyphosis Score of the subjects in the Pre-test and Post-test of Pilate's Exercises group, Yogic Practices group, and Control group have been presented in Table-.1.

**Table – 1**

**The Summary Of Mean And Dependent 'T' Test For The Pre And Post Tests On Kyphosis Of Experimental Groups And Control Group**

Mean	Pilate's Exercises Group	Yogic Practices Group	Control Group
Pre- test mean	40.60	40.61	40.40
Post-test mean	38.13	36.73	40.20
't'-test	3.03*	5.27*	0.24

\*

*Significant at 0.05 level.*

*(Table value required for significance at .05 level for 't'-test with df 14 is 2.15)*

Table - 1 shows that the pre-test mean on Kyphosis of Pilate's Exercises, Yogic Practices group, and Control group are 40.60, 40.61, and 40.40 respectively. The post-test mean are 38.13, 36.73 and 40.20 respectively. The obtained dependent t-ratio values between the pre and post test means on

Kyphosis of Pilate's Exercises, Yogic Practices group, and Control group are 3.03, 5.27, and 0.24 respectively.

The table value required for significant difference with df 14 at 0.05 level is 2.15. It was concluded that Experimental groups such as Pilate's Exercises, and Yogic Practices group and had registered significant decrease in Kyphosis.

The results of the Analysis of Covariance on Kyphosis of the pre, post, and adjusted test scores of Pilate's Exercises, Yogic Practices group, and Control group are presented in Table – 2

**Table – 2**

**Analysis Of Covariance On Kyphosis Of Experimental Groups And Control Group**

Test	Pilate's Exercises Group	Yogic Practices Group	Control Group	Source of Variance	Sum of Squares	df	Mean Squares	F ratio
Pre Test Mean	40.60	40.61	40.40	Between	1.52	3	0.51	0.51
				Within	55.47	56	0.99	
Post Test Mean	38.13	36.73	40.20	Between	185.13	3	61.71	56.84*
				Within	60.80	56	1.09	
Adjusted Post Test Mean	38.08	36.65	40.24	Between	183.36	3	61.12	68.37*
				Within	49.17	55	0.89	

*\* Significant at 0.05 level of confidence (Kyphosis Scores in Centimeters)*

*Table value for df (3, 56) at 0.05 level = 2.76 Table value for df (3, 55) at 0.05 level = 2.78*

The above table-2 shows that the pre-test mean values on Kyphosis of Pilate's Exercises group, Yogic Practices group, and Control group are 40.60, 40.61, and 40.40 respectively. The obtained 'F'

ratio of 0.51 for pre-test scores was lesser than the table value of 2.76 for degrees of freedom 3 and 56 required for significance at 0.05 level of confidence on Kyphosis.

The post test mean values on Kyphosis of Pilate's Exercises group, Yogic Practices group, and Control group are 38.13, 36.73, and 40.20 respectively. The obtained 'F' ratio of 56.84 for post-test scores was higher than the table value of 2.76 for degrees of freedom 3 and 56 required for significance at 0.05 level of confidence on Kyphosis.

The adjusted post-test means on Kyphosis of Pilate's Exercises group, Yogic Practices group, and Combined Pilate's Exercises and Yogic Practices group and Control group are 38.08, 36.65, and 40.24 respectively. The obtained 'F' ratio of 68.37 for adjusted post-test scores was higher than the table value of 2.78 for degrees of freedom 3 and 55 required for significance at 0.05 level of confidence on Kyphosis.

The results of the study indicate that there are significant differences among the adjusted post test means of Pilate's Exercises group, Yogic Practices group, and and Control group in Kyphosis performance.

To determine which of the paired means have a significant difference, the Scheffe's test is applied as Post hoc test and the results are presented in Table –3.

**Table – 3**  
**The Scheffe's Test For The Differences Between The Adjusted Post Test Paired Means On Kyphosis**

Adjusted Post-test Means			Mean Difference	Confidence Interval
Pilate's Exercises Group	Yogic Practices Group	Control Group		
38.08	36.65		1.43*	1.00
38.08		40.24	2.16*	1.00
	36.65	40.24	3.59*	1.00

\* Significant at 0.05 level of confidence

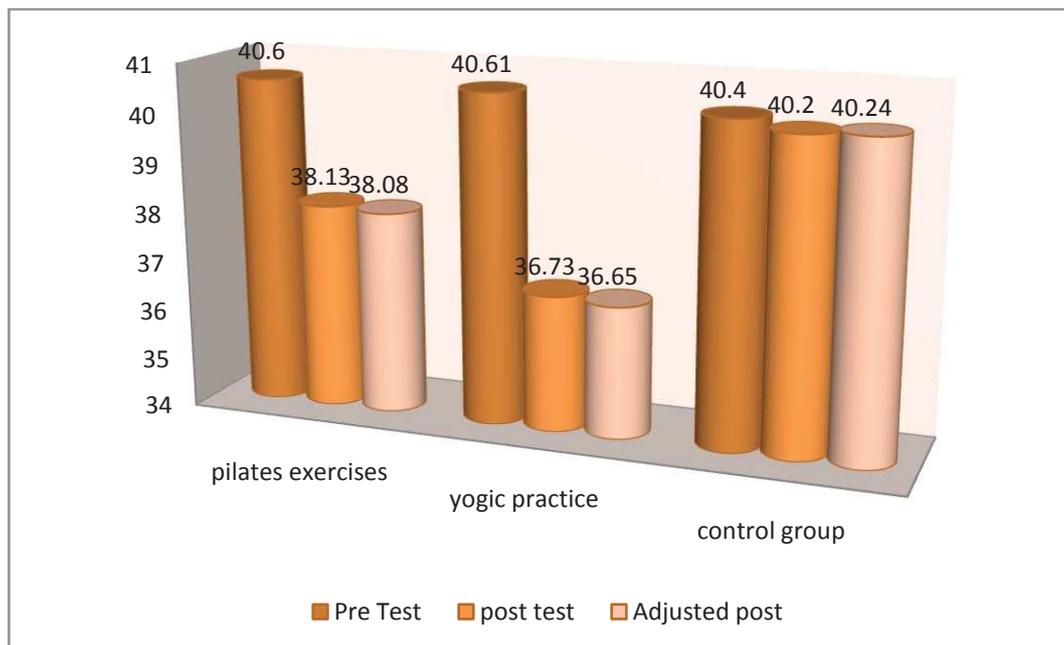
Table-3 shows that the adjusted post test mean differences on Kyphosis between Pilate's Exercises group and Yogic Practices group, Pilate's Exercises group and Control group, Yogic Practices group and Control group, are 1.43, 2.16, and 3.59 respectively, which are greater than the confidence interval value of 1.00 on Kyphosis at 0.05 level of confidence.

The results of the study showed that there was a significant difference between Pilate's Exercises group and Yogic Practices group, , Pilate's Exercises group and Control group, Yogic Practices group and Control group, on Kyphosis.

The above data also reveal that Yogic Practices group had shown better performance Pilate's Exercises group, Control group in Kyphosis.

**FIGURE 1**

**The Pre, Post And Adjust Post Mean Value Of Pilates Exercises Group, Yogic Practice Group And Control Group On Kyphosis**



## Conclusion

The result of the study reveals that the

- There is a Significant improvement in the functional aspect kyphosis of found due to the influence of Pilates exercises group compared with control group
- There is a Significant improvement in the functional aspect kyphosis of found due to the influence of yogic practices group compared with control group
- It is concluded that the yoga practice group have the significant improvement on the functional aspects of kyphosis compared with the Pilates exercises group and controlled group

## Reference

- 1) Adward L. Finnie and Louise Thomson(1998), "*Health and Physical Fitness, What is Physical Fitness, Importance of Physical Fitness, Benefits, Components*", 3rd Ed, W. G. Publications.
- 2) Marie Kathryn(2002), "The Influence of Experience and Selective Attention on the Development of Balance Control", *Dissertation abstracts International*, Vol. 62 no.12, (June), p.4106.
- 3) Sharma O. P(1997), *Encyclopedia of Health, Physical Education & SportsScience*, Khel Sahitya Kendra, Delhi.

## **Innovative Simulation Orientation Program To Enhance Academic Achievement Of Special Need Students On Loss Of Bio Diversity**

**A.Chinnathai**

Ph.D. scholar (full time), Department of Education,  
Alagappa University, Karaikudi-630 003.

### **Abstract**

*This innovative simulation orientation program suggested that means through which students could engage with complex social processes in a manner not encouraged by merely reading books or listening to lecturers (Shellman 2001: 827). Thus rather than create an environment where the blame on the teacher to teach and the student to listen, simulations force students to apply themselves to a particular situation. Integrate the course goals into the post-simulation discussion. Simulation helped them understand the course goals or how it may have made the goals more confusing. The final broad area of support for simulation based teaching relates to a specific skill set developed through this method that are not generally well cultivated through more traditional methods. For example professions such as law, social work, planning, politics and health care each use some form of simulation to develop, practice and test students ability to apply communicate, argue and negotiate with others in a manner that applies theoretical ideas in a practical sense. In this sense the skills developed are highly transferable, as to communicate and negotiate effectively with others are core life skills. Loss of Bio diversity events made real through innovative simulation orientation programs to enhance academic achievement of special need students on loss of bio diversity. Here discussed about such as Definition of Simulation, Education of children with special Needs Students, Achievement of student learning, The significance of Simulation Method, Biodiversity, Causes of the loss of biodiversity, Man and biodiversity, The value of Biological diversity that are very clearly explained.*

### **Introduction**

Feeling better in every-day life, being aware of one's own strength and power, acting in a more self-asserted way, reducing fears, increasing your means of defence and much more: Again and

again, women who have been to self-defence classes report that these have a positive effect. Computer simulations reproduce the behaviour of a system using an Environmental model. Computer simulations have become a useful tool for the Environmental model of many natural systems. Computer simulation orientation programs to enhance academic achievement of special need students. This program enhances the perceptual knowledge on subjects that enhance the life long memory because all events made real environment situation.

### **Definition of Simulation**

Acting out or mimicking an actual or probable real life condition, event, or situation to find a cause of a past occurrence (such as an accident). Theoretical ideas are give in practical sense that is simulation orientation.

Students are solving a set of equations constructing a physical model, staged rehearsal, game, or a computer graphics model. Whereas simulations are very useful tools that allow experimentation without exposure to risk, they are gross simplifications of the reality because they include only a few of the real-world factors, and are only as good as their underlying assumption.

### **Education of children with special Needs Students**

Education is a powerful instrument of social change, and often initiates upward movement in the social structure. The educational scene in the country has undergone major change over the years, resulting in better provision of education and better educational practices. In 1944, the Central Advisory Board of Education (CABE) published a comprehensive report called the Sergeant Report on the post-war educational development of the country. As per the report, provisions for the education of the handicapped were to form an essential part of the national system of education, which was to be administered by the Education Department. According to this report, handicapped children were to be sent to special schools only when the nature and extent of their defects made this necessary. The Kothari Commission (1964–66), the first education commission of independent India, observed: “the education of the handicapped children should be an inseparable part of the education system.” The commission recommended experimentation with integrated programmes in order to bring as many children as possible into these programmes (Alur, 2002).

### **Achievement of student learning**

There is an ongoing debate in academia regarding the effectiveness of simulations and other active learning techniques. This is contributes to a growing body of relevant literature by looking at the impact of a simulation on different kinds of learning as categorized by Bloom (1956). Bloom's taxonomy of cognitive learning consists of six hierarchically ordered levels. From lowest to highest, the six kinds of learning are as follows:

- Knowledge: the ability to recall the appropriate facts, data, and information. Knowledge includes activities such as defining, describing, identifying, and the like.
  - Comprehension: the ability to understand the meaning of information. Comprehension includes activities such as citing, explaining, giving examples, summarizing, generalizing, and so on.
  - Application: the ability to use concepts and information in a new situation. Application includes activities such as applying, constructing, predicting, solving, and so on.
  - Analysis: the ability to break information down into components in order to better understand the issue, draw conclusions, and make inferences. Analysis includes activities such as analyzing, comparing, contrasting, distinguishing, and so on.
  - Synthesis: the ability to bring the different aspects of an issue together in order to understand the big picture. Synthesis includes activities such as formulating, integrating, negotiating, and so on.
  - Evaluation: the ability to make a judgment about the value of concepts and ideas based upon personal values/opinion in the absence of a real right/wrong answer. Evaluation includes activities such as concluding, deciding, defending, judging, supporting, and so on.
- Simulations do not necessarily test the students' ability to recall factual information or summarize previously learned course content. Instead, the simulation requires students to apply the course content to a new, relatively realistic context in order to weigh policy alternatives, draw upon the various course components in order to formulate an argument, and make judgments regarding the "best" alternative. Therefore, this study does not examine the direct impact of the simulation on knowledge or comprehension. Instead, it focuses solely on Bloom's four higher-level learning categories.

### **The significance of Simulation Method**

Much of the early literature centered upon these more active methods of teaching, in particular simulations, was generally focused upon preaching the benefits of this method.

- More active method
- Create complex, dynamic processes in the classroom,
- Fully immersed within real decision-making processes
- Develop Cognitive and effort powers
- Promote the use of critical and evaluative thinking.
- Student Engagement
- Increased class participation
- Promote better relations between the student and the teacher
- Foster an exciting, energetic and engaged teaching environment
- Students in a class that used simulations learned a set of concepts in less time
- Providing a mechanism for quick feedback
- Good increase in student participation
- Transferable Skills Development
- Promote concept attainment through experiential practice.
- Develops more practical skills,
- Integrate the course goals

### **Biodiversity**

The Earth is populated by an incredible number of different living creatures. The term that is used to define this “crowd” of organisms that populate every corner of the Planet, and that have adapted even to the most extreme environments, is biological diversity. Biodiversity measures the variety of animal and vegetable species in the biosphere and is the result of long evolution processes. The elements that make up biodiversity can be subdivided into three different levels:

- Genetic level
- Species level
- Ecosystem level

### Causes of the loss of biodiversity

The main cause of the loss of biodiversity can be attributed to the influence of human beings on the world's ecosystem, In fact human beings have deeply altered the environment, and have modified the territory, exploiting the species directly, for example by fishing and hunting, changing the biogeochemical cycles and transferring species from one area to another of the Planet. The threats to biodiversity can be summarized in the following main points:

- **Alteration and loss of the habitats:** the transformation of the natural areas determines not only the loss of the vegetable species, but also a decrease in the animal species associated to them.
- **Introduction of exotic species and genetically modified organisms:** species originating from a particular area, introduced into new natural environments can lead to different forms of imbalance in the ecological equilibrium. Refer to, "Introduction of exotic species and genetically modified organisms".
- **Pollution:** human activity influences the natural environment producing negative, direct or indirect, effects that alter the flow of energy, the chemical and physical constitution of the environment and abundance of the species.
- **Climate change:** for example, heating of the Earth's surface affects biodiversity because it endangers all the species that adapted to the cold due to the latitude (the Polar species) or the altitude (mountain species).
- **Overexploitation of resources:** when the activities connected with capturing and harvesting (hunting, fishing, farming) a renewable natural resource in a particular area is excessively intense, the resource itself may become exhausted, as for example, is the case of sardines, herrings, cod, tuna and many other species that man captures without leaving enough time for the organisms to reproduce.

### Man and biodiversity

The growth in the human population, in production and consumption, over the last two centuries the natural ecosystems of our planet have been subjected to an impressive depletion of their biodiversity with overall decreases, measured by the Living Planet Index, equal to 30% from 1970 to 2005. Human activities have increased the rate of natural extinction and it is estimated that the current climate change will worsen the situation further. Biodiversity is important as a value itself, also

because it contributes to human wellbeing: the vegetable components and the fauna in the forests are an important source of food for many local populations, they are a source of active ingredients (25% of the drugs), they contribute to increasing the revenue and freedom of choice of the local populations, they are remarkably important in social relations and conservation of the cultural heritage.

### **The value of Biological diversity**

According to the definition of the Millennium Ecosystem Assessment (MA, 2005), the ecosystem services are the benefits people obtain from ecosystems. The Millennium Ecosystem Assessment describes four categories of ecosystem services:

- Life supporting services (such as the nutrient cycle, chlorophyll photosynthesis, soil formation and primary production);
- Provisioning services (such as the production of food, drinking water, materials such as wood and combustibles);
- Regulating services (such as climate regulation and regulation of the tides, hydro geological order , purification of water, waste recycling, pollination and barrier for the diffusion of diseases);
- Cultural values (among which aesthetical, spiritual, educational and recreational values).

### **Conclusion**

Students have highly positive attitude towards simulated teaching as an effective way to acquire academic achievement and apply both content and skills in teaching and learning process. It may be concluded that when simulated teaching functions under conditions such as clear goals, guidelines, proper mentoring and guidance from teachers, students were then able to unlock and develop their potentials and prepare for every issue they will face in their Environmental problems that conserve our earth from anthropogenic Activities.

### **References**

- 1) Anderson, P. H., & Lawton, L. (2009). Business simulations and cognitive learning. *Simulation & Gaming*, 40(2), 193–216.

- 2) Crawford, P., & Macheimer, P. L. (2008). Measuring incidental learning in a PBL environment. *Journal of Faculty Development*, 22(2): 104–111.
- 3) Kanner, M. D. (2007). War and peace: Simulating security decision making in the classroom. *PS: Political Science & Politics*, 40(04), 795–800.
- 4) Ministry of education, Environmental problems.
- 5) CBD (2001). Handbook of the Convention on Biological Diversity. Part 1. Secretariat of the Convention on Biological Diversity, Montreal, Canada,
- 6) Caufield, C. 1982. *Tropical moist forest: The resource, the* Conservation Foundation.
- 7) Charles Perrings (2010), Biodiversity, Ecosystem service and climate change, Environmental Economic series, No :120.

## Stakeholders: Parents Attitude on Assessment of Special Schools

J.Ida Rose Paulin

&

V.Rajeswari

Mother Teresa women's University Kodaikanal

### Abstract

*Special Education is an instruction that is individually tailored to meet the unique learning needs of a child with disabilities. Disability is a “restriction or lack of ability to perform an activity in the manner or within the range considered normal for a human being”. Out of the Indian population the census reports that about 103 million people are disabled. As per the estimation of the Rehabilitation Council of India 10 % of the child population in India has special needs. About 30 million children are in need of Special Education. The objective of special education is to provide an instructional setting that would serve to maximize the academic performance of children with educational problems. Are these special schools are established with specific requirements for special needs of the children? Special children have two main educators in their lives- their parents and their teachers. Parents are the prime educators and they are not in position to afford special infrastructure for their wards education. It is mandatory for the government, school administrators and teachers to provide a conducive and comfortable special environment for the intellectually challenged children .The more vital stakeholder, parent's attitude towards the special schools structure and functioning has been taken into consideration for research. It is observed that the parents felt it is necessary to have qualified special teachers to meet the demands of the special children. Referral services, occupational therapy vocational skill training and counseling for parents are essential. They also opined about the neat and hygienic environment with first aid room are indispensable for the wards. It is high time to see whether the special institutions do satisfy the basic requirements in the view of the parents since the educational and personal needs of the children can be satisfied only through their institutions and the parents look forwards for such an educational environment.*

**Key Words:** Differently abled, intellectually challenged, Special Schools, Individualised Education Programme, Occupational therapy,

## Introduction

Special Education is instruction that is individually tailored to meet the unique learning needs of a child with disabilities. Disability is a ‘restriction or lack of ability to perform an activity in the manner or within the range considered normal for a human being’. Handicapped is a disadvantage for a given individual, resulting from an impairment or disability that limits or prevents the fulfilment of a role that is normal depending on age, sex and social and cultural factors for that individual. Impairment includes blindness, deafness, loss of sight, paralysis of limb, loss of speech, autism, cerebral palsy, mentally retarded or intellectually challenged and learning difficulties. Out of the Indian population the census reports that about 103 million people are disabled. As per the estimation of the Rehabilitation Council of India 10 % of the child population in India has special needs. About 30 million children are in need of Special Education. It describes a functional limitation or activity restriction caused by impairment Special education is the educational provision to train and help the disabled children. It is found that one child of every five requires an extra help in the school because of special educational needs. Thus Special education is the educational arrangement provided to special children so as to develop their potential and make them function as normal members of the society.

The objective of special education is to provide an instructional setting that would serve to maximize the academic performance of children with educational problems. These special children are kept in special classes, so that the specific and special instructional procedures could be followed for them depending on their needs.

Intellectually challenged individuals with mentally retarded have learning problem related to attention, memory language and academics. In Meta cognition they lack depth of processing and executive control. Depth of processing refers to how much cognitive activity a person has to perform a task. Mentally retarded individuals process information at a lower level than non retarded people do. Executive controls refer the ability in planning, monitoring and evaluating one’s own performance.

Special children have two main educators in their lives – their parents and their teachers. Parents are the prime educators until the child attends an early years setting or starts school and they remain a major influence on their children’s learning throughout school and they remain a major influence on

their children's learning throughout school and beyond. The teachers and parents have crucial roles to play. The research shows that student's attendance is better, grades improve, enrolment in advanced classes increases, and high school graduation rates improves when parents are involved in the educational process by taking a greater responsibility towards their children's education. It is believed by all the stake holders that special education institutions need special and good infrastructure, Individualized Education Programmes, referral services and barrier free environment to fulfil the needs of Special Children It is felt necessary to examine the attitude of parents as vital stakeholder towards the attribute of special schools and the title of the study runs as follows, "Stakeholders – parents attitude on assessment of special schools"

The research questions are:

- How special schools will meet the needs of the intellectually challenges in the views of the parents?
- What are the necessary elements to be included in establishing and functioning of a successful special school?
- What are the specific expectations of the parents of the intellectually challenged children who enrol their wards in the school for the mentally retarded?

In India much research has not been done in this area. Prospective parents see it in a positive light. The main objective of the research is to find out the attitude of the parents about the structure and functioning of a special school for the intellectually challenged which includes the infrastructure, curricular aspects, and the educational needs of children with disability. To attain the objective of the study, the researcher has decided to adopt the descriptive method, since it is concerned with conditions or relationships that exist, opinions that are held, process that are going on, effects that are evident.

The research has adopted normative survey method. 200 hundred parents of the intellectually challenged children of twelve special schools in Tamil Nadu were considered for the research. Attitude of parents towards the school of intellectually challenged is the main research variable of the study. An attitude scale for the parents is constructed and standardised by Ida Rose Paulin and Rajeswari [2013]. Finally the scale has got 50 items and the reliability of co-efficient is 0.8196. The face validity has been established.

It includes the items like user friendly toilet [91%], auditorium [87%], spacious specially furnished classrooms[92%], lighting[95%] ramp and rail [98%] and barrier free environment [100%], transport [89%] and play ground. [95%].

Parents felt it is necessary to have occupational therapy [94%], medical care and first aid [97%], vocational and skill training [92%] individual care givers [83%] in schools and counselling [81%] and referral services [78%]. Parents expect a very good rapport with teachers and managements [98%] frequent parents and teachers meet [87%], an ideal student and teacher ratio [77%], regular faculty development programme [63%]and feed back after IEP [58%] are considered as best practices in special schools for intellectually challenged.

They have also felt that the qualified teachers [89%] are must in specific special schools. It is necessary for the school to identify the special talents of the differently abled [77%] since it will give a lift to the life of those children. Competitions are essential for recognizing the specially talented wards. It is opined that individual records shall be seriously and sincerely need to be maintained [58%] by all the teachers continuously to see the strengths and limitations of each individual child.

They have also felt that since it is a growing field, modified and updated global curriculum [68%] needed to be adopted since it is a universal problem. Teachers should be trained [78%] adequately to get mastery and to use the Screening tools because it is the initial and the very first step to know the child's ability. Functional and formative assessment of the child is indispensable [80%] because every day is vital in a child's academic journey because no one knows when it enhances and when it stagnates and declines. They feel it is necessary to maintain the effective educational attainment, the presence and continuous availability of the particular special teacher, their teaching and training [91%] will contribute a lot in one's academic performance .when the teachers are paid [89%] decently it will help in retaining the experienced teachers in this field. Parents opined that neat and hygienic environment [79%] is vital because these children are prone to infection easily .Yoga and physio therapy [80%] must be mandatory and regularly provided.

Music and dance classes need to be arranged [61%] in the school premises which will help to individual talent of the ward Counselling for parents are require from the psychologists [58%] for better coordination and to relieve from the psychological stress.

The findings of this research is made it essential to develop a sound tool for assessing the special school for the Intellectually challenged and it is cone through this investigation .The attitude of parents in establishing a standard special school is formed n the form of an attitude scale was constructed and scientifically standardized. It will help the policy makers and administrators in assessing the special schools for the intellectually challenged which will the special education providers a long way.

### References

- 1) CifciTekinarslan and Bulbin,(2012) A study on “Teachers' and Mothers' Assessment of Social Skills of Students with Mental Retardation”*Educational Sciences: Theory and Practice*, v12 n4 p2783-2788 Aut 2012
- 2) De Laat and Mathijs P. J., (2013) A study on “Attitudes of Children and Adolescents toward Persons Who Are Deaf, Blind, Paralyzed or Intellectually Disabled.”*Research in Developmental Disabilities: A Multidisciplinary Journal*, v34 n2 p855-863 Feb 2013
- 3) Ferrara D.M, (1979) A study on “Attitude of Parents of Mentally Retarded Children toward normalization activities” *American journal on mental deficiency*.Vol84,pp 145-151.
- 4) Floyd, Frank J.; Zmich Derek E., (1991) A study on “marriage and the Parenting Partnership: Perceptions and Interactions of Parents with Mentally Retarded and Typically Developing Children” *Child development* Vol 162 p.no -1434-1448
- 5) Kontu and Rajjam, (2008) A study on “The Assessment of Severely Intellectually Disabled Students” *European Journal of Special Needs Education*, v23 n1 p75-80 Feb 2008
- 6) Rangaswami,(1995) A study on “Parental attitudes of mother towards retarded children with and without behaviour problems from both rural and urban areas in Madras, India” *Indian journal of clinical psychology*.Vol.22(1);pp.20-23
- 7) Roa, (1994) A study on “Behaviour disorders in Moderately Mentally Retarded o and the relation to parent attitude.” *Indian journal of clinical psychology*.Vol.21p.no.27-31.

## Simple Technique in Identification of Children with Strabismus

**Dr.P.Jeeva Shanthi**

Assistant Professor, Department of Special Education, Avinashilingam Institute for Home Science and Higher Education for Women, Coimbatore.

### Abstract

*The misalignment of one eye from another is known as squint and it is a fairly common visual problem in young children. This imbalance forces the normal eye to work hard to cope with the functions of farsighted eye, which if left untreated leads to its loss of vision reported by Toronto (1969). In India, ophthalmologist population ratio counts 1: 25,000. Hence this issue is neglected due to treatment back lock in cataract and major eye diseases. Hence this situation necessitated and urges the education and rehabilitation professionals to identify the children with strabismus and children at risk for strabismus at earlier stage per say. Hence a study is planned in the educational setting using indigenous techniques and devices. The present research study entitled encompasses primarily to study the importance of early vision screening and to give remedial programmes on how these children can be identified using simple techniques in the classroom and home setup.*

**Keywords:** Misalignment, Squint, Vision, Imbalance, Rehabilitation.

### Introduction

**“Vision without action is a daydream.**

**Action without vision is a nightmare”** Stephen S.Wise (2004)

Human eye is the organ which gives us the sense of sight, allowing us to observe and learn more about the surrounding world than we do with any of the other four senses. The human vision system at birth is under primitive development but rapidly it becomes the remarkable combination of nerve tissues, muscles and optical lenses that provide us with the sense of vision. We use our eyes in almost

every activity we perform, whether reading, working, watching television, writing a letter, driving a car, and in countless other ways.

The misalignment of one eye from another is known as squint and it is a fairly common visual problem in young children. It is a crossed eye condition resulting from an eye muscle irregularities making one of the eyes farsighted than the other. This imbalance forces the normal eye to work hard to cope with the functions of farsighted eye, which if left untreated leads to its loss of vision reported by Toronto (1969).

The strabismus is prevalent among children in the age group of 5 years or younger which is roughly between 7-8%, whereas 3% of children were affected by amblyopia. Development of cataracts or strabismus into amblyopia can be prevented through early treatment of children (MEDLINE 1999).

The University of Texas, USA (2006) reported that only 21% of preschool children received eye examination and when it comes to a comprehensive eye examination the percentage dropped further. It was estimated that 5 to 10% preschool children suffer undetected vision problems as they never got an eye examination. As a result, long term vision outcomes, education achievements and self esteem of these children will be permanently affected owing to failure of early detection of visual impairments. Therefore, many professional organizations including American Academy of Pediatrics (AAP), stress the necessity for detecting vision problems at preschool levels and treating the same before they enter school.

In India, ophthalmologist population ratio counts 1: 25,000. Hence this issue is neglected due to treatment back lock in cataract and major eye diseases. Hence this situation necessitated and urges the education and rehabilitation professionals to identify the children with strabismus and children at risk for strabismus at earlier stage per say. Hence a study is planned in the educational setting using indigenous techniques and devices.

The present research study entitled encompasses primarily to study the importance of early vision screening and how these children can be identified using simple techniques in the classroom setup and correcting the strabismic children with glasses, patches and exercises.

### Statement of the problem and Operational definitions

The problem of the current research study is stated as “Simple Technique in Identification of Children with Strabismus”.

### Operational definitions

The operational definitions of the terms used in the study are as follows

**Eye defects:** Errors in vision of the eye are called as eye defects. (WHO, 2001). The children with strabismus are the sample for the study.

**Strabismus:** It is a term used to describe the uncorrectable loss of vision in an eye that appears to be normal. Commonly referred to as ‘LAZY EYE’. (Larry Bickford, O.D., 1999)

The common types of strabismus are,

**Esotropia:** One eye is turned inwards. Commonly called as Crossed Eye.

**Exotropia :** One eye is turned outwards. Commonly called as Wall Eye.

**Hypotropia:** One eye is directed downwards.

**Hypertropia:** One eye is directed upwards.

In this study the samples were having only the esotropic and isotropic strabismus whereas the hypertrophic and hypo tropic types were not found among the samples.

**Pseudo strabismus:** It is a false appearance of Strabismus. Strabismus is usually falsely anticipated when the patient has a flat, wide bridge of the nose and a fold of skin in the corner of the eye that makes the eye appear to be turned inward. Pseudo strabismus is typically found in infants and children. (Strabismus.com)

**Anganwadi :** The children between 2-5 years are enrolled and their growth, supplementary feeding, immunization, distribution of vitamin A, Iron and Folic acid supplements, treating minor ailments, referring medical services were monitored (ICDS -International Child Development Services., 1995).

In this study the strabismic children were identified from 50 Anganwadi schools representing the North, and South block of Coimbatore district.

## Objectives of the Study

The objectives of the study are to:

Screen children using indigenous devices and techniques

- Identify children with strabismus and at risk for strabismus enrolled in Anganwadi programme.
- To inculcate the knowledge about the importance of early vision screening.
- To give remedial programmes on how these children can be identified using simple techniques in the classroom and home setup itself.
- Create awareness to teachers, parents and caretakers on the effect of strabismus and the benefits of vision therapy and visual efficiency training activities to overcome strabismic problem.

## Methodology

The researcher adopted Quasi – experimental study to screen and Identify children with strabismus and at risk for strabismus enrolled in Anganwadi programme.

The investigator also used Case study approach for careful and critical investigation of the individual's sensory skills particularly vision skills with the support of parents and teachers. The study was designed on the basis of Pretest and Posttest without control group Design.

### Site description

The present study was conducted in Anganwadi schools situated at Coimbatore district covering North block and South block including both urban and rural areas. The Strabismic children were identified from 50 Anganwadi schools.

### Sample selected for the study

The investigator used Purposive Sampling technique to select the sample for this study. The sample chosen for the present study consisted of 1,500 preprimary children age group between 2 – 5 years. These children were enrolled in 50 Anganwadi schools, registered under ICDS project of Coimbatore District.

The investigator gathered information from the teachers and parents with regard to the problems encountered by the Anganwadi children. Based on the information, the investigator used Hirschberg method and identified 31 children having strabismic and at risk for strabismic condition. They were once again screened with the help of adapted checklist from WHO (1993) to find out if there are any problems such as appearance of the eyes, complaints and behaviour of the child.

### **Tools used for the study**

Based on the objectives of the study, the investigator selected suitable tool such as

- i) **Personal data bank** to collect the information about the subjects such as name, age, gender, date of birth, order of child, any visual problems in family, qualification, occupation and income of parents.
- ii) **Vision screening checklist** developed by WHO (1993) which consisted of 50 items listed under 3 areas, such as Appearance of the eye, Complaints encountered by the children and Behaviour of the children. The purpose of the checklist was to screen the strabismic condition associated with any other visual defects.

### **Findings of the study**

The major findings are summarized as follows:

- 31 children were identified with strabismic eyes.
- Out of which 17 were boys and the remaining 14 were girls i.e., the prevalence of strabismus among boys is more than girls.
- The highest percentage of the strabismic children fall under the age group of more than 3½ years.
- It was found that cent percentage of the children were congenitally strabismic.
- While analyzing the type of strabismus 73% of them having Isotropic and the remaining 27% of them represented Exotropia. It was noted that none of the children had Hypo tropic and Hypertrophic strabismus.
- It was found that, the remedial programmes on identifying strabismic condition at classroom or home itself was very valuable.

- It was revealed that, the remedial programmes and awareness programmes helped in overcoming the vision problems such as appearance of the eye, complaints reported and behavior exhibited by the children.
- The teachers, parents and caretakers told that the remedial programme and awareness programmes promoted better understanding of the problems of strabismic children.

## Conclusion

Early identification and intervention is the best means to minimize the eye defects associated with strabismus. Despite enormous challenges encountered by the strabismic children in day to day activities they can also achieve great deals in their life through proper training and follow up of remedial and awareness programmes. The early identification and intervention enhance equal opportunity and exposure in education and employment in the right time for the strabismic children. Thus the research carried out currently leads us to more hope in the search for the causes and intervention for strabismus. Awareness among the parents of anganwadi children enhanced them to undertake the identification process, to know about the child's eye condition. So that every child enrolled in anganwadi schools will be benefited.

## References

- 1) Alotaibi, A.G., Fawazi, S.M., Alenazy, B.R., Abu-Amero, K.K. (2012). Outcomes of 3 hours part-time occlusion treatment combined with near activities among children with unilateral amblyopia. *Saudi medical journal* 33(4), 395-8. Retrieved from <http://www.ncbi.nlm.nih.gov/pubmed/22485234>
- 2) Bois, C., Binot, M. C., Jonqua, F., Mouret, M. F., Guillemot, G., & Bremond-Gignac, D. (2009). Early visual screening appears essential to detect complete amblyopia risk and to treat strabismus earlier. *Journal Francais D'ophtalmologie* 32(9), 629-639.
- 3) Caputo, R., Tinelli, F., Bancalè, A., Campa, L., Frosini, R., Guzzetta, A., Mercuri, E., & Cioni, G. (2007). Motor coordination in children with congenital strabismus: Effects of late surgery. *European Journal of Pediatric Neurology* 11(5), 285-291.

- 4) Dobson, V., Clifford-Donaldson, C. E., Green, T. K., Miller, J. M., & Harvey, E. M. (2009). Optical treatment reduces amblyopia in astigmatic children who receive spectacles before kindergarten. *Ophthalmology*, 116(5), 1002-1008.
- 5) Elliott, S., Shafiq, A. (2013). Different treatments for a squint (deviation of the eye) that occurs within the first six months of life. *Issue 7*. Retrieved from <http://summaries.cochrane.org/CD004917/different-treatments-for-a-squint-deviation-of-the-eye-that-occurs-within-the-first-six-months-of-life#sthash.55tFdtKc.dpuf>
- 6) Gamio, S., & Melek, N. (2003). When the patient say no. management of exotropia with hemianopic visual field defects. *Binocular Vision Strabismus Quarterly* 18(3), 167-70.
- 7) Hatt, S.R., Gnanaraj, L. (2013). Treatment for a type of childhood strabismus where one or both eyes intermittently turn outwards. Retrieved from <http://summaries.cochrane.org/CD003737/treatment-for-a-type-of-childhood-strabismus-where-one-or-both-eyes-intermittently-turn-outwards#sthash.DncfXnX3.dpuf>
- 8) Keogh, B. K. (1985). Vision training revisited. *Journal of Learning Disabilities* 18(4), 228-236.
- 9) Metzger, R. L., & Werner, D. B. (1984). Use of visual training for reading disabilities: A review. *Pediatrics* 73(6), 824-829.
- 10) Tim Gorski. (1992). Healthy Skepticism. *Dr. White's "Vision Therapy"*.
- 11) Ziegler, D., Huff, D., & Rouse, M. W. (1982). Success in strabismus therapy: A literature review. *Journal of American Optomological Association* 53(12), 979-983.

## Promoting Pro-Social Behaviour towards Children with Disabilities

**\*Mrs. U. S. E. Porkodi**

Research Scholar - Ph.D. Department of Education, DDE Alagappa University, Karaikudi-630 003

**\*\*Dr. M. Vasimalairaja**

Associate Professor in Education Department of Education, DDE Alagappa University,  
Karaikudi-630 003

### Abstract

*Pro-social behaviour word indicates skills that are social in nature. To help, cooperate, share, and comfort others, a child needs to interact with, interpret, and socialize with another peer or individual. Children with developmental disabilities do not have the social skills similar to their same aged peers then it can be deducted that special needs of the children, facing challenges with social skills, may have fewer opportunities to develop their pro-social behaviours. If the child with special needs face obstacles when interacting with their peers, this population would have lower pro-social behaviours. According to Fenning, Baker, and Juvonen (2011), children with developmental disabilities used less pro-social problem solving strategies compared to their same age peers without developmental disabilities. This paper deals about to promoting pro-social behaviour towards children with disabilities.*

**Keywords:** Skills, Pro-social Behaviour, Disabilities & Special Needs Children

### Introduction

About 650 million people in the world or 10 per cent of the world's population live with disabilities. Children with disabilities are now accepted into the general educational settings in the United States, which is challenging for both the children with disabilities and for the teachers who are responsible for both typically developing children and children with disabilities across all developmental domains including social development. Due to their cognitive or physical impairments, children with disabilities often exhibit deficits in their pro-social behaviours.

**Pro-social behavior**

Pro-social behavior, or "voluntary behavior intended to benefit another", is a social behavior that "benefits other people or society as a whole", "such as helping, sharing, donating, co-operating, and volunteering". Pro-social skills involve regulating negative emotions, taking turns and sharing, support orientations to others that are fair, just, and respectful. Pro-social behaviour is a hallmark of social competence throughout childhood.

Pro-social behavior is any action intended to help others. One motivation for pro-social behavior is altruism, or the desire to help others with no expectation of reward.

**Person with disabilities**

Disability is an impairment that may be cognitive, developmental, intellectual, mental, physical, sensory, or some combination of these. It substantially affects a person's life activities and may be present from birth or occur during a person's lifetime.

**Cognitive impairments**

Children with cognitive impairments (e.g., Autism, Down syndrome, etc.) demonstrate a lack of receptive and expressive communication skills, difficulties in social interaction and emotion regulation showing deficits with joint attention, and lower levels of theory of mind. These identified characteristics are negatively associated with interpersonal skills, social competence, and pro-social behaviours among children with intellectual delay (cognitive impairments) in educational settings.

**Physical impairments**

Children with physical impairments are often socially and physically isolated. A lack of social skills negatively influences the social acceptance of children with disabilities by peers without disabilities. Many students with disabilities are less socially accepted by their typically-developing peers, children with disabilities may be more likely to develop positive behavior skills and pro-social behavior if they interact with those who have positive social skills and quality relationships with others.

**Development of pro-social behaviour among children**

Schools provide children with ongoing opportunities to develop pro-social skills by way of interactions with peers. These opportunities can be informal, taking place within the context of

friendships, peer group interactions, and play. They can also occur within the context of formal instruction, such as cooperative and collaborative learning activities. Positive relationships and interactions with teachers can also result in students learning and adopting positive values for pro-social behaviour in the classroom. Pro-social behaviour appears to support the development of academic skills.

Pastorelli et al. (2016) determined that positive parenting practices, such as warmth, support, affection, and explanation, were associated with increased pro-social behaviours of youth. Children's pro-social behaviours elicit positive parenting behaviours, such as praise, and parent management behaviours impact the development of children's pro-social behaviours.

### **Role of teacher to develop pro-social behaviour**

Teacher - Child relationship was a positive predictor of children's pro-social behavior among children with disabilities. It is more significant for developmental achievement and pro-social behaviour. Such an educational setting requires early childhood teachers to adequately guide and instruct both children with and without disabilities, to provide all children with equally socially -desirable relationships, and to encourage equally socially -desirable behaviours among children. Although a close and supportive teacher - child relationship is significant in developing pro-social behavior.

Preschool children with disabilities sometimes have difficulties in their interactions with their teachers or caregivers and different types of disabilities result in discrete differences in social behavior problems among children with disabilities. Close teacher-child relationships impact the children's peer relationships and their learning in general, helping them to learn pro-social behavior pattern and build competence in their behaviours. Certain parent behaviours also associated with pro-social behaviours and will enhance it. Children's behaviours are the products of the interpersonal relationship, which is in turn related to behavior problems, peer relationships, and school performance.

### **Factors that affecting the pro-social behaviour**

- Children with disabilities students spend most of their time in school. Teacher- Student relationships are most important. It is influencing the development of positive social skills and pro-social behaviours.
- Children with disabilities may learn along with their peers in a warm environment. So the class room climate may be influenced the pro-social behaviour.
- Peers have a strong influence on children's pro-social behaviour and challenging behaviours.
- Lack of social skills negatively influences the social acceptance of children with disabilities by peers without disabilities.
- Parent-child relationship is critically important for the child to build a secure base in their relationship with others

### **Recommendations to foster educational equity for disabled childrens**

- More research on enrolment, outcomes and barriers to education for disabled girls
- Explicit inclusion of disabled girls in all policies and programs for girls and in all policies and programs for disabled children
- A comprehensive approach to violence prevention for disabled girls, including widespread sex education
- Targeted outreach to parents to ensure that disabled girls have access to education.
- Targeted scholarships for disabled
- Teacher education that includes training on gender and disability
- Recruitment of disabled women educators
- More programs specifically designed for disabled people
- To role models and self-advocacy skills, a focus on assets and parent involvement

### **Conclusion**

Childrens with any form of disability are among the more vulnerable and marginalized of society and frequently encounter a myriad of physical and social obstacles. Children often lack the opportunities in their academic and social activities. They have very poor in pro-social behaviour. Therefore it is

necessary to take into account and to address their concerns in all policy-making and programming. Special measures are needed at all levels to integrate them into the mainstream of development.

### References

- 1) Pianta, R., & Stuhlman, M. (2004). Teacher-child relationships and children's success in the first years of school. *School Psychology Review*, 33(3), 444–458.
- 2) Rimm-Kaufman, S. E., Kagan, J. (2005). Infant predictors of kindergarten behavior: The contribution of inhibited and uninhibited temperament types. *Behavioral Disorders* 30, 329–345.
- 3) Saft, E. W., & Pianta, R. C. (2001). Teachers' perceptions of their relationships with student: Effects of child age, gender, and ethnicity of teachers and children. *School Psychology Quarterly*, 16(2), 125–141.
- 4) Spieker, S. J., Nelson, D.C., Petras, A., Jolley, S.N., Barnard, K. E. (2003). Joint influence of child care and infant attachment security for cognitive and language outcomes of low-income toddlers, *Infant Behavior and Development*, 26(3), 326-344.

## A Study of Achievements of the Specially Abled In Various Fields

**Mr.G.Praveen Kumar**

Research Scholar-Ph.D., Department of Education (DDE)  
Alagappa University, Karaikudi-630 003

**Dr.M.Vasimalairaja**

Associate Professor in Education, Department of Education (DDE)  
Alagappa University, Karaikudi-630 003

### Abstract

*As per World Health Organization estimates more than a billion people live with some form of disability worldwide. Disability casts a significant impact in the development of a disabled child and a constant struggle for the families as well. Multiple political, health care delivery system and social determinants have been identified which have limited the scope of benefit to disabled children. A disabled child represents a vulnerable section of the society because of the socio-psychological restrictions due to disability. The need is to have a comprehensive program for the welfare of the disabled child and their family members to enable them to lead a normal life.*

### Keywords

disabled, disability, disabilities, rehabilitation, differently-abled, Specially Abled,

### Introduction

Many famous personalities, who were either born with disability or they met with tragic incidents, have made a place for themselves in the world. Their never-say-die attitude has served as an undying inspiration and motivation for those who have to battle with disabilities. Many of them are legendary actors, sports-persons, politicians, musicians, athletes, artists and writers. They have chosen a challenging public life with dignity, by defying all odds and turning the spotlight on themselves. There are some lesser-known people with disabilities, whose awe-inspiring stories are worth knowing. So, here, let's discuss about the lives of some of the brave and extraordinary people, who are the living legends in their own way and deserve a salute for their indomitable spirit.

### Review of related literature

**Saurabh Ram Bihari Lal Shrivastava (2014)**, conducted a study about Differently Abled Children Striving to Lead a Normal Life. As per World Health Organization estimates more than a billion people live with some form of disability worldwide. Disability casts a significant impact in the development of a disabled child and a constant struggle for the families as well. Multiple political, health care delivery system and social determinants have been identified which have limited the scope of benefit to disabled children. A disabled child represents a vulnerable section of the society because of the socio-psychological restrictions due to disability. The need is to have a comprehensive program for the welfare of the disabled child and their family members to enable them to lead a normal life. To conclude, for doing adequate justice to the differently-abled child, ample scope exists. Political commitment, multi-sectoral involvement and collaboration with international agencies are the main pillars for extending the benefit of welfare measures to the disabled child.

**Subhash Meena (2015)** conducted a study of disability studies and scope for rehabilitation of differently abled children. Disability studies offers critical approaches with which to re-think and re-assess existing research tools and methods in any discipline. Examining existing bodies of knowledge from the disability perspective; collating, understanding and analyzing the construction of disability; providing voice to the lived experience of persons with disabilities and acknowledging their experiential expertise could be some of the overreaching objectives to prompt disability studies. In this paper, drawing insights from the field practices, an attempt is made to chart out the role of disability studies, to not only define a research agenda from the perspective of persons with disabilities, but also the role of research itself in emancipating the lives of poor persons with disabilities by influencing policy change. In fact, it also underscores the need to incorporate the unique concerns and experiences of disabled people while designing and practicing research in the field of disability studies in India.

### Differently abled people

Differently abled is a euphemistic term for someone who might formerly have been classed as disabled, handicapped, challenged, or having special needs. it can apply to people with predominantly physical or mental challenges. the description is thought to be more politically correct in some circles

because it recognizes that even if people have mental and/or physical impairments, they still have abilities, contrary to the picture painted with the terms disabled or handicapped.

### Types of Disability

Despite all the best efforts at prevention, children may be born with or develop the following disabilities in early childhood, from the causes which are not yet fully understood or could be prevented.

#### Types of disabilities:

- Visual impairment
- Hearing impairment
- Loco motor impairment; Cerebral Palsy
- Mental retardation and Mental illness
- Children with learning disabilities
  - i. Dyslexia
  - ii. Dysgraphia
  - iii. Dyscalculia
  - iv. Attention Deficit and Hyperactivity Disorder (ADHD)

#### Percentage of disabled to total population India, 2011

Residence	Persons	Males	Females
<b>Total</b>	2.21	2.41	2.01
<b>Rural</b>	2.24	2.43	2.03
<b>Urban</b>	2.17	2.34	1.98

#### Achievements of specially abled persons:

Most of us take our lives for granted. Despite being physically fit, we keep complaining and making excuses. And here they are - the so-called differently-abled people, who prove that you don't need two hands, legs or eyes to succeed. All you need is willpower and determination. Here are the people who not only overcame their physical handicaps, but also achieved goals which even able-bodied people would find difficult to:

### 1. Bharat Kumar

**Disability:** Born with right hand only.

Bharat Kumar was born with a right hand by birth, but his physical disability never dissuades him from pursuing his dreams. Born on Dec 10, 1989, Bharat Kumar, a world champion, has made Bharat (India) proud by winning over 50 medals in para- swimming contests.

**Achievements:** He has won two international titles, one silver at the IWAS World Junior Athletics Championships in Ireland and one gold medal and over 40 national level medals. Young Bharat has flown to countries like England, Ireland, Holland, Malaysia and China to participate in swimming contests.

### 2. Arunima Sinha

**Disability:** Amputee. 27-year-old Arunima Sinha lost her left leg in an unfortunate incident on April 11, 2011.

**Achievement:** Despite the fact that she lost a leg, she did not give up the spirit of her life and defied all conceivable odds.

Infect, Arunima decided to convert her weakness into her biggest strength and by her true determination, on May 21, 2013, she achieved the rare feat to become the first Indian amputee to conquer the Mount Everest, with the help of a prosthetic leg.

Beside setting an example to the world, Arunima also made India, a proud nation when she hoisted the Indian tricolor flag at the peak of the Mount Everest.

### 3. Sharath Gayakwad, Paralympic swimmer

Being born with a deformed left hand did not deter this starry-eyed kid who started taking swimming lessons when he was just 9. Sharath recently created history by winning 6 medals at the Para Incheon Asian Games 2014. With this, he broke the legendary PT Usha's 28-year-old record at the Asian Games. Not only this, he also has over 30 international and 40 national medals to his name. He was also the first Indian to qualify for the London Olympics for the disabled in 2010.

### 4. Preethi Srinivasan

Preethi Srinivasan was the captain of the under-19 Tamil Nadu women's cricket team. Even after the unfortunate swimming accident that left her paralyzed below the neck, she continues to inspire other lives through her organization Soul free. She has started to provide hope to

women with severe disabilities and assists them in fulfilling their highest human potential by providing a basic quality of life.

## Conclusion

Disability is part of the human condition. Almost everyone will be temporarily or permanently impaired at some point in life, and those who survive to old age will experience increasing difficulties in functioning. Most extended families have a disabled member, and many non-disabled people take responsibility for supporting and caring for their relatives and friends with disabilities. A study of the above personalities proves only one important fact – it takes more than courage to face the adversities to win over and be victorious. If they could do it, so could you!

## References

- 1) Inspiring Stories of 16 Famous Disabled Indians - The Better India. (2017, April 4). Retrieved from <https://www.thebetterindia.com/16449/famous-indians-with-disability/>
- 2) B.Solanki, S., & Mandaliya, S. (2016). Enhancing Library Resources Access for Different Abled Person Through ICT. *International Journal of Information Sciences and Techniques*, 6(1/2), 257-267. doi:10.5121/ijist.2016.6228
- 3) Saurabh Ram Bihari Lal Shrivastava, Prateek Saurabh Shrivastava & Jegadeesh Ramasamy. (2014). Differently Abled Children Striving to Lead a Normal Life - What Program Managers Can Do? *Global Journal of Medical research: k Interdisciplinary*, 14(1). Retrieved from [https://globaljournals.org/GJMR\\_Volume14/2-Differently-Abled-Children-Striving.pdf](https://globaljournals.org/GJMR_Volume14/2-Differently-Abled-Children-Striving.pdf)
- 4) Differently Abled People and Their Life. (2016, March 11). Retrieved from <https://www.peertechz.com/Clinical-Case-Reports/GJMCCR-3-122.php>
- 5) Jalan, I. (2014, November 3). 8 Inspiring Stories of Differently-Abled People That Prove Impossible Is Nothing. Retrieved from <https://www.scoopwhoop.com/inothernews/impossible-is-nothing/#.sge2mteqi>
- 6) In Pics: 11 extraordinary personalities with disabilities. (2014, December 3). Retrieved from <https://www.oneindia.com/feature/in-pics-10-extraordinary-personalities-with-disabilities-1580686.html>

## Predicament of Autism Children's in India

Dr. A. Puvi Lakshmi,

Guest Faculty

University of Madras, Chennai, Mob-9962731743

### Abstract

*In the worldwide 67 million people are affected by autism and 12 per 1,000 children's are developing the symptoms of "Autistic Disorder". In India 1 in every 250 children's are possibly developing with autism. Autism is a neurological condition that typically manifests in the first three years of life. It causes differences from accepted typical development in three main areas: social understanding, communication, and social imagination. The exact causes of autism remain elusive, but researchers increasingly believe that both genetics and environment play a role. The current advances in medical filed made easy to acknowledge the autistic features in children. The present paper attempts to investigate the problems of autism children in India. It also highlights the prevalence of autism, perceptions, and actions for dealing with autism children.*

**Keywords:** Autistic Disorder, Social understanding, Social imagination, Genetics, Autistic features.

### Introduction

The word 'autism,' has come from the Greek word 'autos' meaning 'self'. The term 'autism' was first used to describe the condition known as "Autism spectrum disorder (ASD)". Autism is a condition affecting populations worldwide. Prevalence rates per country can be difficult to determine. More than 10 million children in India suffer from autism, which means a prevalence rate of one in 66. It is found that 1 to 1.5 per cent autistic children between ages two and nine in India (INCLIN, 2017). In 1968, psychiatrist Leo Kanner presented a follow-up study of 11 patients on whom he first reported in 1943, a study that culminated in the first published description of the disorder "infantile autism" (Kanner, 1971). He found that only two of his original patients enjoyed even a marginal satisfaction with life. Notably, these outcomes occurred without treatment for autism. Unfortunately, India is the largest exception to the list of countries with an estimate of the prevalence of autism and supra threshold autistic traits in the general population. (Elsabbagh et al., 2012). The exact causes of autism remain elusive, but researchers increasingly believe that both genetics and environment play a

role. Although there is no cure for autism, there are many people or groups around the world who promote various treatments that claim to cure children with autism.

### **Problems of Autism**

Autism is a neuro-developmental disorder of behavior that presents in childhood. It is a clinically heterogeneous disorder of behavior, characterized by two features

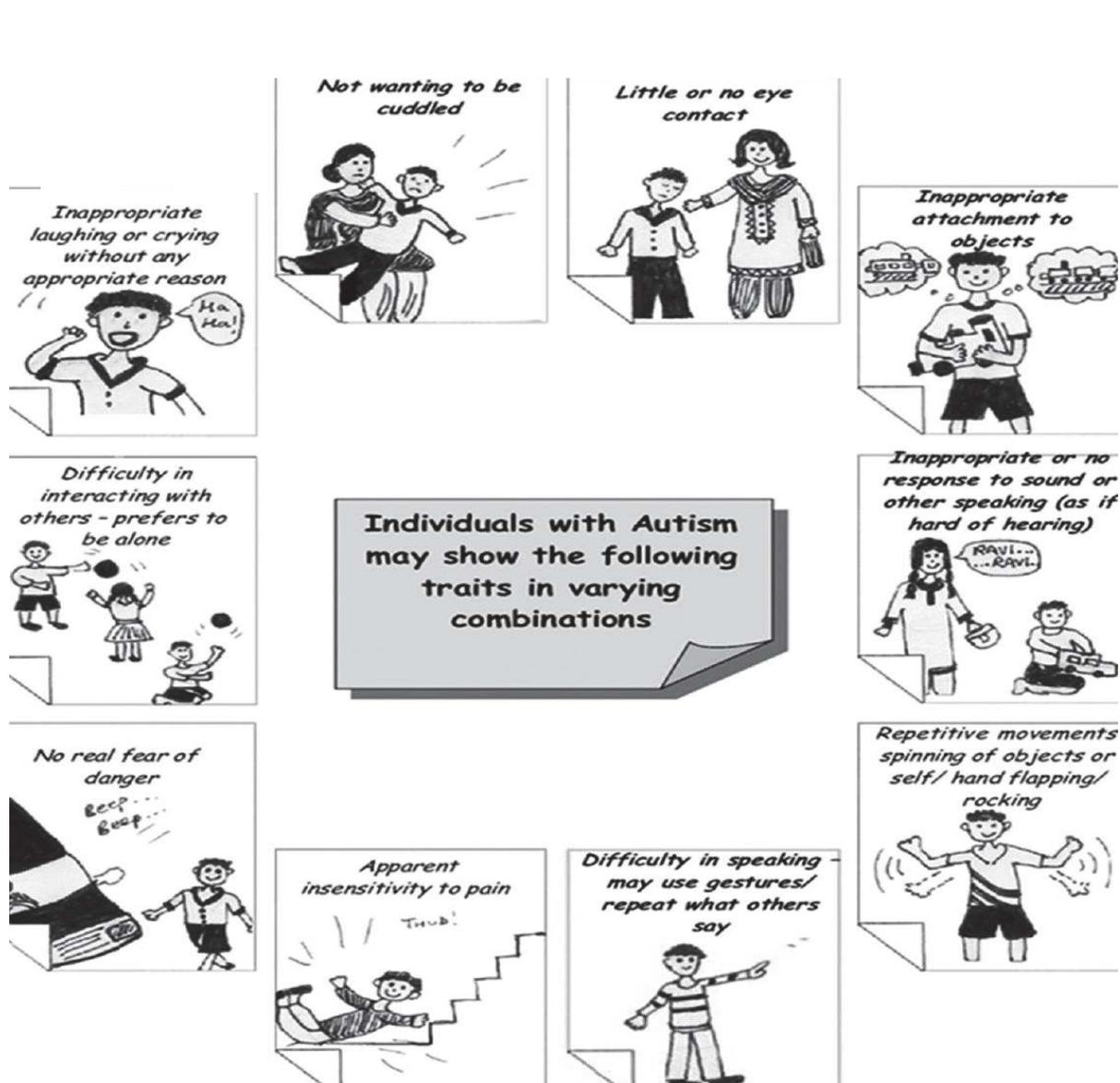
- (1) Impairment in social communication and interaction
- (2) Repetitive patterns of behavior.

The diagnosis is primarily clinical and is based principally on history-taking and observation of the child over a period. Many myths and misconceptions prevail about autism and most of the professionals in medical, educational, and vocational fields are still unaware of effects of autism and working with autism children. Autism is unique among other developmental disorders; firstly, there is no clear biological marker, like in mental retardation, deafness, and blindness. Without a definitive test, the diagnosis of and prognosis for autism is burdened with uncertainty.

Secondly, because it is characterized by problems of social interaction, such as forming attachments and showing affection, parents of children with autism are often denied some of the fundamental rewards of parenthood. As a result, autism has been considered as one of the most complex and intractable developmental disorders with which families may have to cope. They are three characteristics of autism:

- Social withdrawal; Impairment of language and communication;
- Ritualistic, compulsive and repetitive behaviour;
- Demands for sameness or resistance to change; Abnormal responses to sensory events

Figure No.1: Common signs and symptoms associated with Autism



Source:<http://www.cmijournal.org/article.asp>

Parents play a crucial role in dealing with autistic children. In most situations parents will suffer from stress. The first challenge parents of autistic children is the diagnosis itself, which can bring heartbreak, anxiety, anger and a feeling that life has been unfair.(Gray 1993) Another hurdle for parents is the achieving the social inclusion of their child both at school and in the community.

The more severe the child's symptoms, the greater will be the degree of parental stress. Furthermore, the family will be isolated and stigmatized socially that they will experience (Pathappili, 2011). Research further suggests that parents are likely to encounter persistent feelings of distress and sorrow about child's future, child's lack of ability to communicate that may hinder the development of adequate parenting practices. (Ebata et al) It is recommended parents consult with their child's team; consisting of special education teachers, the occupational therapist, the speech-language pathologist, the behavioural therapist to help them create a consistent plan for dealing with challenging behaviours in and out of school. Parents also faced heavy financial demands of having a child with autism. The Indian context, many times elderly people consider autism as taboo and to be ashamed of, rather than providing support. (Malhotra, 2012)

The person who has social support will buffer life stress, enhance respect, feeling of belongingness and self-esteem in the community. (Helgeson, 2003) For children with autism, friendships lacking intimacy, reciprocity and emotional enrichment led to more intense and frequent loneliness compared to non-autistic peers, despite the common belief that children with autism prefer to be alone. (Bauminger & Kasari, 2000)

### **Treatments and Organisations working with Autistic children**

It is a syndrome composed of a number of behavioural characteristics. During diagnosis, the physician has to observe the child's behaviours, as well as interview the parents to obtain a detailed developmental history from birth through a time of the interview. Numerous screening instruments have been developed to congregate information about a child's social and communicative development. The most effective treatment for all children with autism is an appropriate educational training program that is tailored to the child's specific needs.

Table No.1: Screening test, Treatments and National Organisations working with Autistic Children

<b>Screening Tests</b>
• Checklist for Autism in Toddlers (CHAT)
• Modified Checklist for Autism in Toddlers (M-CHAT)
• Screening Tool for Autism in Two-Year-Olds (STAT)
• Autism Spectrum Screening Questionnaire (ASSQ)
• Social Communication Questionnaire (SCQ)
• Australian Scale for Asperger Syndrome (ASAS)
• Social Communication Questionnaire (SCQ) for children 4 years of age and older.
<b>Treatments</b>
✓ Applied Behavioural Analysis (ABA)
✓ PECS (Picture Exchange Communication System)
✓ HANDLE (Holistic Approach to Neurodevelopment and Learning Efficiency)
✓ The Miller Method
✓ Picture Exchange Communication System (PECS) - adjunct treatment to behavioural management
✓ Treatment and Education of Autistic and related Communication handicapped Children (TEACCH) protocol
✓ Complementary and alternative medicine (CAM) treatment
<b>National Organisations working with Autistic Children</b>
➤ Action for Autism (India)
➤ National Autistic Society (UK)
➤ Autism Society of America (US)
➤ Autism Research Institute (ARI)
➤ Autism Speaks

Source: Action for Autism Autistic Spectrum Disorders-A Guide for Paediatricians in India (2008)

## Conclusion

In Indian people largely give importance to social norms and values, conditions like autism spectrum disorder cause a heavy impact on the quality of life of family and society. Most people think it occurs as effects of pervious birth and many other religious notions are related with this syndrome. It needs continued professional development and research in order to deal with autism kids.

The intervention should include various professional experts from different fields and careful planning strategies are needed. Some of them:

- Parents need proper counseling to manage their child's behaviour in the home and public situations.
- It is imperative to develop a training program for professionals in the educational system to learn skills on how to work with children with Autism, which ensure that the children with Autism are taught the right behaviors and will receive the most benefit from their education.
- The research-based, best practice techniques and information are indeed to frame effective pedagogy and collaborative methods that helps for the progress of students with autism  
Interactive professional community: the best learning environment for pre-service teachers
- The advance researches are needed in the field of medicine, psychology, education and sociology for effective interventions in dealing with autism. Professionals must also work to create government policies to support the parents.
- Public awareness and support are needed at every stage of the process from diagnosis and till treatment which will reduce anxiety and stress in the families who are having an autistic child.

## References

- 1) Posserud, M., A.J. Lundervold, S.A. Lie and C. Gillberg, 2010. The prevalence of autism spectrum disorders: Impact of diagnostic instrument and non-response bias. *Soc. Psychiatry Psychiatric Epidemiol*, 45: 319-327. DOI: 10.1007/s00127-009-0087-4
- 2) Marchant, P., A. Hussain and K. Hall, 2006. Autistic spectrum disorders and Asian children. *Br. J. Educ. Stud.*, 54: 230-244. DOI:10.1111/j.1467-8527.2006.00342.x
- 3) Pathapilli, J.S. J. (2011). *A Qualitative Study on Indian Mothers and their Perception of Autism* Unpublished M.Sc, Dissertation, Department of Psychology.

- 4) Meadan, H., Halle, J.W., Ebata, A.T. (2010). Families with children who have autism spectrum disorders: Stress and support. *Council for Exceptional Children*, 77 (1), 7-36.
- 5) Gray, D.E. (1993). Perceptions of autism: The parents of autistic children. *Sociology of Health and Illness*, 15 (1), 102-120.
- 6) Sanua V.D. (2008). *Is infantile autism a universal phenomenon? An open question. International Journal of Social Psychiatry*, 30, 163-177.
- 7) Kanner, L. (1971). Follow-up study of eleven autistic children originally reported in 1943. *Journal of Autism and Childhood Schizophrenia*, 1, 119-145.
- 8) Helgeson, V. (2003). Social support and quality of life. *Quality of Life Research*, 12 (Suppl. 1), 25-31.
- 9) Bauminger, N., & Kasari, C. (2000). Loneliness and friendship in high functioning children with autism. *Child Development*, 71, 447-456.
- 10) Elsabbagh, M., Divan, G. (2012). Global prevalence of autism and other pervasive developmental disorders: Global epidemiology of autism. *Autism Research*, 5, 160-179.
- 11) Malhotra S, Khan W, Bhatia MS. Quality of Life of Parents having Children with Developmental Disabilities. *Delhi Psychiatry Journal*. 2012 April; 15(1): p. 171-76.
- 12) <http://m.indiatoday.in/story/autism-autistic-mind-western-syndrome-myths-about-autism-autistic-children/1/322242.html>
- 13) <http://www.cmijournal.org/text.asp?2017/15/1/6/200297>
- 14) <http://southasia.oneworld.net/news/india-home-to-highest-number-of-autistic-patients-in-south-asia>
- 15) [http://www.autismindia.org/docs/Advocacy\\_Attachments\\_Autistic%20Spectrum%20Disorder%20A%20Guide%20for%20Paediatricians.pdf](http://www.autismindia.org/docs/Advocacy_Attachments_Autistic%20Spectrum%20Disorder%20A%20Guide%20for%20Paediatricians.pdf)
- 16) [https://www.researchgate.net/publication/264266143\\_Quality\\_of\\_life\\_in\\_families\\_of\\_children\\_with\\_autism\\_spectrum\\_disorder\\_in\\_India](https://www.researchgate.net/publication/264266143_Quality_of_life_in_families_of_children_with_autism_spectrum_disorder_in_India)
- 17) <https://www.google.co.in/url?sa=t&source=web&rct=j&url=http://thescipub.com/PDF/jssp.2012.196.201>
- 18) <https://www.google.co.in/url?sa=t&source=web&rct=j&url=http://onlinelibrary.wiley.com/doi/10.1111/j.1475-3588.2006.00432.x/abstract>
- 19) <https://www.google.co.in/url?sa=t&source=web&rct=j&url=http://www.researchpublish.com>
- 20) <https://www.autismspeaks.org/what-autism/>

## **A pilot study: To reduce the level of stress through Guided Imagery on Spinal Cord Injury cases**

**M. Ramakrishnan,**

MOT (Mental Health), Occupational Therapist, JIPMER Hospital, Pondicherry, India.

Email:priyarama5masilamani@gmail.com

**Hossain Shakhawath,**

BOT, Occupational Therapist, CRP, Dhaka, Bangladesh. Email: shakhawath.sajip@gmail.com

Sarmily Roy, BOT, Occupational Therapist, CRP, Dhaka, Bangladesh.

### **Abstract**

*Background study:Spinal Cord Injuries are referred to in terms of the regions (cervical, thoracic, and lumbar) of the spinal cord in which they occur and the numerical order of the neurological segments (Pedretti 3<sup>rd</sup> edition. .p.582). Aim & Objectives:To determine the effectiveness of Guided Imagery among Spinal Cord Injury cases in the hospital setting. To identify the level of stress. To test the effect of Guided Imagery among SCI in the hospital setting.Methodology:Sample: 30 SCI patients, age 18-59 years old.Inclusion criteria's are Clients should be of traumatic etiology with or without vertebral injury. And complete and incomplete lesion. Exclusion criteria's are clients with preceding spinal deformity, head injury and cervical spinal cord injury.Only Stress questionnaires are used in this study. Results:The results showed that there was no significant difference between the pre and posttest of stress questionnaire.Keywords:Spinal Cord Injury, Guided Imagery, Stress.*

### **Introduction**

Spinal Cord Injury (SCI) involves damage to the axons of spinal nerve cells due to compression, bruising, tearing, or severing of spinal cord tissue. The damage results in impairment or loss of sensory or motor function corresponding with the level at which the injury occurs. SCI's are classified as either complete or incomplete, and the resulting paralysis is categorized as either tetraplegia or paraplegia (Willard and Spackman's 12th edition. 2013. P.1179)<sup>1</sup>.

The term stress generally refers to the reactions of the body to certain events or stimuli that the organism perceives as potentially harmful or distressful. Such stress inducing events or stimuli, which are referred to as stressors, can be either physical or psychological in nature (Kathleen T. Brady and C. Sone, Pharm. D 1999). The degree to which perceived controllability alters the way a stressor is experienced varies greatly among individuals (Tim.V. Salomons 2007).

Guided Imagery technic is under the Auto-genic training which is one of the stress management technics. Imagining oneself in settings where one would feel warm, comfortable, and heavy can facilitate these autosuggestions. Auto-genic training is an effective adjunctive treatment for stress-related conditions (Ehlers et al, 1995)<sup>3</sup>.

Stress management programs offer a practical way to change maladaptive responses, using cognitive and physiological components. The occupational therapist and the individual need to establish a set number of sessions during which they will explore issues and practice dealing with this. Identifying negative thoughts, understanding the meaning of them and changing and modifying thoughts can help stressful situations become manageable (Ann Turner 2002)<sup>4</sup>.

### **Aim**

To determine the effectiveness of Guided Imagery among Spinal Cord Injury cases in the hospital setting.

### **Objectives**

To identify the level of stress. To test the effect of Guided Imagery among SCI in the hospital setting.

### **Hypotheses**

Null hypothesis - There was no significant difference between the pre and posttest of stress questionnaire.

### **Methodology**

Sample size: 30 SCI patients

Study design: Experimental study

Study procedure: A pilot study 30 SCI with the age group of 18-59, conducted in the hospital setting. No standard questionnaire like Perceived rate of Stress Scale used, questionnaires which previously done in our University. This Stress questionnaire was asked the participants directly by the staff as a pre assessment after getting priority permission from the administration and the patients. Then the purposes of doing stress-management techniques are explained and introduced the guided imagery technic at the bed side. After medicine and surgery procedures it can be started with actively in the acute and active phases of SCI in the sitting position. 15 minutes for each case individually on daily basis. Period of the study was 3 to 6 months. Post data was collected by the same staff. Then analysis the pre and post data after the intervention with the help of SPSS latest version.

## Results

### Frequencies

#### Statistics

		Pre	Post
N	Valid	30	30
	Missing	0	0
Mean		18.27	18.87
Median		18.00	19.00
Std. Deviation		4.593	3.540
Minimum		9	11
Maximum		25	25
Percentiles	25	15.00	16.75
	50	18.00	19.00
	75	22.25	21.25

T-TEST PAIRS=Pre WITH post (PAIRED) /CRITERIA=CI(.9500) /MISSING=ANALYSIS.

### T-Test

#### Paired Samples Statistics

	Mean	N	Std. Deviation	Std. Error Mean
Pre	18.27	30	4.593	.839
post	18.87	30	3.540	.646

#### Paired Samples Correlations

	N	Correlation	Sig.
Pre & post	30	.889	.000

No significant difference between the pre and posttest of stress questionnaire.

#### Paired Samples Test

	Paired Differences				
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference	
				Lower	Upper
Pre - post	-.600	2.175	.397	-1.412	.212

### Paired Samples Test

		t	df	Sig. (2-tailed)
Pair 1	Pre - post	-1.511	29	.142

### Discussion

Stress is a part of our day to day life. The stress management programs include coping skills training, aerobic exercise, autogenic training (self-hypnosis, guided imagery), communication skills, laughter, meditation, deep breathing, progressive muscular relaxation, time management and verbalization.

The purpose of the study was to determine the effectiveness of Guided Imagery technic among spinal cord injury cases in the hospital setting. From these results this study shows that there was no significant different between the pre and posttest of stress questionnaire. But the SCI cases need coping strategy skills whenever possible by the expert or the therapist.

### Reference

- 1) Willard & Spackman's (2013) Occupational Therapy 12<sup>th</sup> edition.
- 2) Willard & Spackman's (2003) Occupational Therapy 10<sup>th</sup> edition.
- 3) Willard & Spackman's (1993)Occupational Therapy 8<sup>th</sup> edition.
- 4) Occupational therapy and physical dysfunction: principles, skills, and practiceBy Ann Turner, Margaret Foster, Sybil E. Johnson 2002.

- 5) LAMBERT SALLY.PH.D. R.N, (1996) The effects of Hypnosis/Guided Imagery on the postoperative course of children. *Journal of Developmental & Behavioral Pediatrics*.
- 6) KWEKKEBOOM KL; Kneio J. Pearson L, (2003) A pilot study to predict success with guided imagery for cancer pain. *PubMed*.
- 7) Ball TM; Shapiro DE; Monheim CJ; Weydeert JA, (2003) A pilot study of the use of guided imagery for the treatment of recurrent abdominal pain in children. *PubMed*.
- 8) Carol L. Baird DNS, APRN, BC, Laura Sands PhD, (2004) A pilot study of the effectiveness of guided imagery with progressive muscle relaxation to reduce chronic pain and mobility difficulties of osteoarthritis. *Science Direct*.
- 9) Deisch P; Soukup SM; Adams P; Wild MC, (2000) Guided Imagery: replication study using Coronary artery bypass graft patients. *The Nursing clinics of North America*.
- 10) Fuji S, Tadayonfar MA, Mohsenpour M, Rakhshani MH, (2015) The study of the effect of Guided Imagery on Pain, Anxiety and some other hemo dynamic factors in patients undergoing coronary angiography. *PubMed*.

## A single case study: Occupational Therapy intervention on Spastic Diplegia

**M. Ramakrishnan**

MOT, Occupational Therapist, JIPMER Hospital, Pondicherry-6,

### Abstract

*A descriptive case study illustrates that the nine year old male child with spastic diplegia with walking difficulty. He goes to a normal school and is capable of writing with left hand. He is dependent in walking before the intervention. Partially dependent in self-care activities, inability to squat and walking independently with high stepping gait and sometimes slightly scissors. After admission he is treated with medical procedure and is rehabilitated by the occupational therapist in the hospital and continues follow up after discharge. The plan for the therapy is to walk independently with calipers and independent in self-care and reassess the case after the therapy.*

### Introduction

**Spastic diplegia cerebral palsy** is a form of cerebral palsy a neurological condition that usually appears in infancy or early childhood, and permanently affects muscle control and coordination<sup>1</sup>.

Spastic diplegia is one of the nine different types of cerebral palsy. It affects the legs and arms, making them stiff and contracted. The legs are generally affected more than the arms. In fact, the upper extremities of the body are usually able to retain good range of motion and muscle tone. Yet, both upper and lower limbs can equally be affected in some cases, depending on severe the spastic diplegia is. This makes crawling and walking difficult and most often, children will walk with a wide “scissor gate.” Legs can also turn inwards and cross at the knees due to excessive muscle contractions. Other children may not be able to walk at all<sup>2,3</sup>.

Although symptoms may change as a person gets older, the condition does not get worse over time (progress)<sup>3</sup>.

The long-term outlook (prognosis) for people with spastic diplegia cerebral palsy varies based on the signs and symptoms present in each person and the severity of the condition. For example, some people who are mildly affected may have no limitations on movement and be able to care for themselves independently. Others who are severely affected may be unable to move without

assistance and require extensive care. Spastic diplegia cerebral palsy is a lifelong condition and long-term care from a team of medical specialists is usually required. Although it can be associated with a shortened lifespan, improved treatment and management options have led to increases in survival and quality of life<sup>1,4</sup>.

Occupational therapy (OT) is an integral part of a Cerebral Palsy patient's overall treatment program. The goal of occupational therapy is to promote a child's ability to perform daily rituals and activities in a way that will enhance their quality of life and make possible the enjoyment of independent living.

During occupational therapy, a trained therapist will guide the individual in adapting, compensating, and achieving maximum function levels. They take into account physical functioning abilities and limitations, cognitive functioning levels (i.e., reasoning and processing skills), emotional needs and desires, and ability and willingness to adapt and compensate. The existing home environment and support system play an important role, as well.

Occupational therapy is a form of therapeutic intervention. The goal of therapy is to ensure a child achieves the highest level of functional performance within their home, school, public and work environments. Occupational therapy employs adaptive processes to teach a child to perform tasks required in the normal course of a day.

**Occupational therapists focus on assessing and developing an individual's ability to function day-to-day to their highest level in normal daily activities at home, in school, out in public, and at work. The goal is to foster independence, productivity, and self-care. Occupational therapists will help a person improve strength, dexterity, and coordination while performing tasks, but they will also assist in decision-making, abstract reasoning, problem solving, perception, memory, sequencing, and more.**

#### **Case description**

The nine year old male child with spastic diplegia walking with difficulty. He goes to a normal school, studies fourth standard with left hand writing. But his right hand fine motor functions are inadequate. His speech is appropriate and cognition is good. In the Activities of Daily Living, self-care is partially independent (eating self, brushing self, able to do upper half dressing but difficulty in

lower half dressing, difficulty in squatting-dependent in toileting) mobility-walking independently for a few steps and his social interaction and communication are normal. But no fixed deformity and contracture are found in him. Developmental milestones are achieved with delay except independent sitting, standing and walking before intervention. No stair climbing, mobility with wheel-chair his found in the ward.

**On observation** Knock knee is presented. Toe walking is presented. Bilateral equinovarus valgus is presented. Moreover that thoraco lumbar lordosis is also presented.

**On examination** muscle spasm presented on the left hip flexion is more than on the right hip flexion. And left hip internal rotator tightness and adductor tightness are more than on the right hip. Bilateral medial hamstring tightness is more than the lateral hamstring tightness, left side is more than the right side.

Range Of Motion (ROM)- right hip active ROM is  $100^{\circ}$  and the left is  $100^{\circ}$ . Right hip passive ROM is  $120^{\circ}$  and the left is  $110^{\circ}$ . Right hip extension active ROM is  $15^{\circ}$  and the left is  $25^{\circ}$ . Right hip extension passive is  $30^{\circ}$  and the left is  $30^{\circ}$ . Right hip adduction active ROM is  $15^{\circ}$  and the left is  $15^{\circ}$ . Right hip abduction active ROM is  $35^{\circ}$  and the left is  $25^{\circ}$ . Right knee ROM is  $120^{\circ}$  and the left is  $120^{\circ}$ . Right ankle plantar flexion active ROM is  $10^{\circ}$  and the left is  $10^{\circ}$ . Right ankle plantar flexion passive is  $50^{\circ}$  and the left is  $50^{\circ}$ . Right ankle dorsi flexion active ROM  $5^{\circ}$  and the left is  $20^{\circ}$ . Right ankle active dorsi flexion is  $15^{\circ}$  and the left is  $15^{\circ}$ .

Muscle tone- right hip adductor is 2 and the left is 2. Right hip medial hamstring is  $1^{+}$  and the left is  $1^{+}$ . Right hip lateral hamstring is 1 and the left is  $1^{+}$ . Right calf muscles is 2 and the left is  $1^{+}$ . Right peroneus is  $1^{+}$  and the left is 1.

Muscle power- right hip flexors are  $4^{+}$  and left is  $4^{+}$ . Right quadriceps are 4 and the left is 4. Right calf muscles are  $3^{+}$  and the left is  $3^{++}$ . Right tibialis anterior is  $2^{-}$  and the left is 3.

### **Medical management**

He has undergone the medical procedures at bedside. Alcohol Botox injection 8ml on both lower extremities (LE) is given to reduce tightness of hip adductors, hamstring tightness and Tendo Achilles tightness. After that Plaster Of Paris (POP) resting splint is applied on both LE, for a few days he remains on the bed.

### **Occupational Therapy intervention**

After two weeks he enters into occupational therapy section for further management. Physiotherapy management starts with passive range of motion and then active range of motion is continued. Apart from that, he has to be continued in self-care training and mobility by the occupational therapist after the full evaluation procedures. First of all developmental milestone under the category of Neuro Developmental Therapy is started. Independent sitting on either side, then independent standing with support is achieved after the training. Standing for a few minutes without support and stands by the same position through verbal commanding as a positive reinforcement. Transfer training-independent transfer from floor to grade up stool and chair, then chair to stool. Lastly, climbing staircase by holding the bar independently starts. Gait training with Knee Ankle Foot Orthosis (KAFO) on the parallel bar daily is applied. Side line walking on the bar, and squatting independently transferring from the standing position is achieved. Graded pegboard activity to improve fine motor function and the strengthening of upper extremities is given. Hand writing by the right hand training is also part of the occupational therapy. Sometimes mind diversional activities for calming the child are given and colourful activities are given for more attention and improving concentration. Guided imagery is given as a part of stress management programs for forgetting pain after the post injection period. However, it may not be helpful for reducing pain sometimes.

### **Discussion**

Initially, he has difficulty in placing the foot on the floor with support. He complains about the pain and discomfort after the post injection spasticity cerebral palsy has more fearful tendency. So he needs more soothing technic to initiate further. After the removal of serial cast, POP resting KAFO splint is applied temporarily on both LE for keeping the foot in a neutral position. Toe walking is not found after treatment. Tying procedure also is taught to the caregivers. He has very talkative nature; so the therapist has to follow the very strict attitude towards him in order to achieve the therapeutic goals. We can use the Gross Motor Function Measure (GMFM-88) for assessing developmental tasks. He has a fearful tendency in climbing up the staircase and down the staircase. So we have to give more verbal commanding and encouragement to get the development. GMFM-88 can be used as a pre and posttest. It may take 6 months for intervention. And the self-care takes him in to the model toilet seat and asked him to sit in the squatting initially with support. After the grace period he has to achieve independent sitting without support. Here he needs the positive reinforcement for

achievement in dressing and ask him to button and unbutton the both (upper and lower) himself independently. Repetition is going to be more helpful for learning self. And also he has no need in any adaptive devices like build up handle or splint for self-care training. Overall he can achieve maximum goals in the ADL after a long intervention period.

### References

- 1) 1.Cerebral Palsy: Hope Through Research. *National Institute of Neurological Disorders and Stroke*. November 2014; <https://www.ninds.nih.gov/Disorders/Patient-Caregiver-Education/Hope-Through-Research/Cerebral-Palsy-Hope-Through-Research>
- 2) 2.Abdel-Hamid HZ. Cerebral Palsy. *Medscape Reference*. August, 2016; <http://emedicine.medscape.com/article/1179555-overview>.
- 3) 3.Spastic diplegia cerebral palsy. *Cerebral palsy guidance*. <https://www.cerebralpalsyguidance.com/cerebral-palsy/types/spastic-diplegia/>
- 4) 4.Cerebral Palsy. *MedlinePlus*. August 2013; <http://www.nlm.nih.gov/medlineplus/ency/article/000716.htm>.
- 5) 5.Jane-Case –Smith (2010) (Occupational Therapy for Children sixth edition).

## Efficacy of iPad on Learning Science among Students with Mild Intellectual Disability at Primary Level

**Dr. D. Rathnakumar**

Assistant Professor of Special Education (Intellectual Disability)

CSI College of Education with Special Education, Pasumalai, Madurai – 625004.

### Abstract

*The paper aims to evaluate the comparative efficacy of Computer-Assisted Instruction (CAI) using iPad and CAI using traditional computer and mouse for students with mild intellectual disability. Experimental study was conducted at Tiruchirapalli. CAI programme based on interactive tutorial mode (drill and practice) presentation was developed and used for study. Study was conducted using Two Groups, Randomized Matched Subjects, Post-test-only Design. Two matched groups were formed on the basis of mild intellectually disabled student's level of cognitive ability and medium of instruction, each group comprised of 15 students and randomly assigned as experimental and control group. Experimental group received CAI using iPad whereas control group received CAI using traditional computer and mouse for the same Science concepts/units. After completion of Instruction an achievement test was administered to both the groups. Then the Null hypothesis was tested using 't'-test, which revealed the significant difference in efficacy of CAI using iPad and CAI using traditional computer and mouse. The study revealed the greater efficacy of CAI using I Pad over traditional computer and mouse on Learning Science among students with mild intellectual disability at Primary level.*

**Key words:** Computer-Assisted Instruction, iPad, Learning Science, Mild intellectual - disability

### Introduction

Technology can facilitate learning, engage students and create opportunities that benefit all learners including learners with special needs. Every disability, however mild or moderate, imposes on the individual certain functional limitations. Technology helps to mitigate such limitations thus promoting rehabilitation. Computer-Assisted science instruction programmes can demonstrate concepts, instruct, and remediate student errors in learning various science concepts. McManis & Gunnewig, (2012) report that Computer-Assisted Instruction (CAI) has been used to teach a variety

of academic skills and subjects including science to teach students with disabilities including intellectual disabilities.

In the present study Learning Science refers to the achievement score (dependent variable) obtained in classified and structured learning of science concepts/units of Parts of the Plant, Living and Non living Things, Water, Natural Resources, Work-Push and Pull, and Solids, Liquids and Gases in Standard Two Text Book in Environmental science section followed in the state schools of Tamil Nadu.

Researchers disclosed and learning theories suggest that we can expect faster learning and greater knowledge transfer from learning using touch screen computer compared to one equipped with a keyboard and mouse. For children with intellectual disabilities using a keyboard and mouse requires learning a new skill as well as it is demanding than the learning task at hand. Research reports reveal that Touch screen helps children who have sensory integration problems and who cannot use mouse or key board because of fine motor impairments and for such students technological supports such as tablets/iPads with touch screen helps easy access to computer and increases their possibility of participation in the learning activities both inside and outside the classroom.

There are a limited number of studies that teach Science through iPad to students with intellectual disability when compared using traditional computer and mouse. In addition there is a lack of empirical data on the effects of using an iPad and its impact on student learning, it is important to determine the comparative efficacy of CAI using iPad and CAI using traditional computer and mouse. Keeping this in mind it was decided to carry out the present study

### **Rationale of the Study**

The results of this study may provide important insights into the use of iPad with intellectually disabled learners. This research base can be an aid to curriculum developers and educators in designing individualized Primary Science instructional programmes that use iPad in effective ways.

**Objectives:**

- 1) To develop a Computer-Assisted Instructional Programme using iPad on Learning Science among students with mild intellectual disability at Lower Primary level.
- 2) To study the efficacy of traditional computer with mouse in terms of mean achievement score obtained by the subjects.
- 3) To study the efficacy of iPad in terms of mean achievement score obtained by the subjects.
- 4) To study the comparative efficacy of Computer-Assisted Instruction using iPad and traditional computer with mouse.

**Hypothesis**

1. When students with mild intellectual disability at Lower Primary level Learn Science concepts through traditional computer with mouse and iPad, there will not be significant difference between their Post-Test-Mean Scores.

**Method****Research Design**

Randomized Matched Subjects, Post-Test only Design was employed in the present study.

**The Sample**

The study subjects, students with mild intellectual disability studying Second Standard were selected from an inclusive school of Tiruchirapalli of Tamil Nadu State. Purposive sampling was used for the present study. The sample of the study consists of 30 students with mild intellectual disability. Two matched groups were formed on the basis of pre-intervention assessment of student's cognitive ability, reading and writing abilities (using Behavioural Assessment Scale for Indian Children with Mental Retardation (BASIC-MR) Part-A for skill behaviour). No prompt or corrective feedback was given. Reinforcers were identified by interviewing teachers and observing students. The researcher screened for the following pre-requisites skills such as visual ability to see pictures and words displayed on the iPad, the ability to hear directions; the ability to operate the iPad independently by touching the screen with index finger; the ability to attend to a teacher-directed task for at least

10minutes. Each group comprised of 15 subjects and randomly assigned as experimental and control group. The groups were formed after controlling the intervening variables i.e cognitive ability and medium of instruction.

### **Variables of the Study**

Independent Variables: Modes of teaching science instruction i.e.,

1. Computer-Assisted Instruction using iPad
2. Computer-Assisted Instruction using traditional computer with mouse

Dependent Variable: Achievement scores of students with mild intellectual disability on Learning Science obtained through two different modes of instruction

### **Tools**

The investigator employed the following tools for data collection in the present study:

- BASIC-MR (Part A) adapted and validated.
- Computer-Assisted Instructional Package using iPad (on the content for instruction)
- Achievement Test in Science (criterion-referenced) developed and Content validity was established for the tool.

### **Statistical Techniques**

Statistical Techniques used in the study were – Mean, S.D., 't'-test and Graphical presentations.

### **Procedure and Collection of Data**

#### **Operational Procedures**

The following procedures were followed by the researcher for data collection:

- Approaching the Inclusive school - obtaining permission for instruction and Data collection- Fixing schedule.

- Approaching Parents of special children-to-obtain their consent.
- Formulating Computer-Assisted Instructional Frameworks using I Pad
- Administration of BASIC-MR (Part-A) to students with mild intellectual disability-ascertaining their current level of cognitive ability, reading and writing skills.
- Instructional implementation of CAI using iPad and Desk top computer with mouse.
- Administration of Post-Test (Achievement Test in Science).
- Statistical Analysis of the responses.

### Results and Discussion

Achievement scores were obtained by conducting a achievement test after providing Computer-Assisted instruction using iPad to experimental group and Computer-Assisted Instruction using traditional computer with mouse to control group. The following table and graph furnishes the data of the Post-test (achievement test) performance of control and experimental groups, it also furnishes the significance of difference between the achievement scores of subjects in two groups

**Table: Analysis of Achievement Mean Scores of the Control and Experimental Group.**

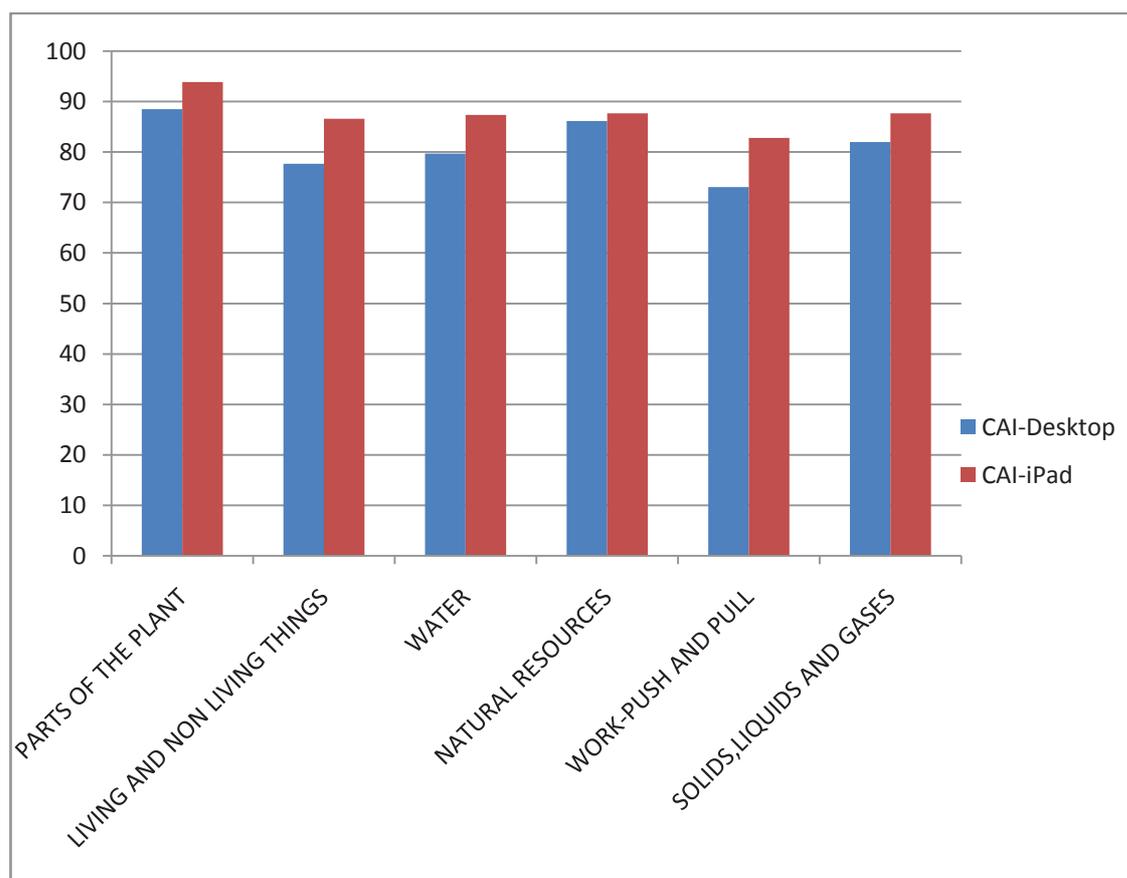
GROUP	N	Mean	SD	t-value	Sig
<b>Parts of the Plant</b>					
CAI - Desktop	15	88.46	5.41	2.48	P 0.05
CAI- iPad	15	93.85	6.46		
<b>Living and Non Living Things</b>					
CAI - Desktop	15	77.69	5.28	4.58	P 0.01
CAI - iPad	15	86.62	5.65		
<b>Water</b>					

CAI - Desktop	15	79.69	5.39	3.53	P 0.01
CAI - iPad	15	87.38	6.51		
<b>Natural Resources</b>					
CAI - Desktop	15	86.15	5.55	0.72	NS
CAI - iPad	15	87.69	6.14		
<b>Work-Push and Pull</b>					
CAI - Desktop	15	73.08	5.99	5.13	P 0.01
CAI - iPad	15	82.77	4.19		
<b>Solids, Liquids and Gases</b>					
CAI - Desktop	15	82.00	6.34	2.16	P 0.05
CAI - iPad	15	87.69	4.87		

For testing the hypothesis 't' test was used. It is inferred that there is significant difference in the Mean Scores of students with mild intellectual disability using traditional computer and mouse and iPad on Learning Science concepts namely, Living and Non living Things, Water, Work-Push and Pull at 0.01 level and there is significant difference in the Mean Scores of Parts of Plants, Solids, Liquids and Gases at 0.05 level. And it is also inferred that there is no significant difference in the Mean Scores of students with Mild intellectual disability in the concept of Natural Resources at any level. Hence the null hypothesis is not tenable in report of the concepts namely Parts of the Plant, Living and Non Living things, Water, Work-Push and Pull and Solids, Liquids and Gases and is rejected. Whereas the null hypothesis related to the Science concept namely Natural Resources is tenable and is accepted. This implies that the difference in the achievement of the control group and experimental is significant in five out of six Science concepts. It may therefore be concluded that Computer-Assisted Instruction using iPad helps in enhancing the achievement of students with mild

intellectual disability on Learning Science in comparison to the Computer-Assisted Instruction using traditional computer and mouse.

**Figure: Difference between Achievement Mean Scores of the Control and Experimental Group.**



The performance of students with mild intellectual disability is low in the science concept of Natural Resources may be due the nature of particular science concept and with addition of some materials of life use, the example provided demanded extension of imagination, but within their level of cognition and understanding. Yet the difficulty level has a step up and challenging a few for discrimination. It is understood from the study that when the student learn science using iPad their achievement is greater. The results of the present study are in consonance with reports of Scruggs and Mastropieri (2007) that different instructional interventions effectively employed and a variety of validated

practices could promote all aspects of science learning of students with disabilities. Foshay and Ludlow (2005) in (Wehmeyer and Agran (2005), Stock, Davies, Davies and Wehmeyer (2006) recommended that the best option could very well be to use touch screen computers, which represent a valuable tool for individuals with intellectual disability. Touch screen computers reintroduce the hand-eye coordination and allow these individuals to select information directly with their fingers or with pointers. They have to be less precise than with traditional computers where they have to be very careful with manipulating the mouse.

### **Conclusion**

*Conclusions drawn from the study:*

- Active involvement of children with intellectual disabilities in learning facilitated using iPad helps show a higher academic achievement.
- In learning facilitated by using iPad with individual access points helps children with intellectual disability in learning and show higher achievement when taught through iPad..
- It is the compatibility of learning method with the ability and interest of the learner that counts for better performance.
- There is variation in learning and achievement according to the nature of science content (Science concepts/units).
- Subjects who underwent instruction through iPad enjoyed the learning experience.
- Novelty of learning through iPad kept the learners self-motivated.

In a nutshell, iPad provides greater opportunities for the intellectually disabled learner to learn by serving individual differences with personalized accessibility. iPad proved to be better than the traditional computer and mouse on learning science among students with intellectual disability at Primary level. It brings an efficacy and enhancement in achievement and provides novel touch-driven learning experiences and has much scope in Science Learning.

## References

- 1) Foshay, J., & Ludlow, B. (2005). Implementing computer-mediated supports and assistive technology.
- 2) McManis, L. D., & Gunnewig, S. B. (2012, May). Finding the Education in Educational Technology with Early Learners. *Technology and Young Children* , 14-22.
- 3) Scruggs, T. E., & Mastropieri, M. A. (2007). Science Learning in Special Education: The Case for Constructed Versus Instructed Learning. *Exceptionality*, 15 (2), 57-74.
- 4) Stock, S. E., Davies, D. K., Davies, K. R., & Wehmeyer, M. L. (2006). Evaluation of an application for making palmtop computers accessible to individuals with intellectual disabilities. *Journal of Intellectual and Developmental Disability*, 31(1),39-46.
- 5) Wehmeyer, M.L, & Agran, M. (2005). *Mental retardation and intellectual disabilities: Teaching students using innovative and research-based strategies*. Boston, MA: Pearson Custom Publishing

## Language Development of Children with Hearing Impairment through Animated Instruction

**Dr. C. Renuga Devi**

Assistant Professor

Department of Education

Mother Teresa Women's University

Kodaikanal -624101

### Abstract

*Children with Disability are in great requirement of appropriate educational measures for helping them in meeting out their special needs and to cope with their deficits or extraordinary abilities. Children with Hearing Impairment face critical difficulties in language development which in turn affects their academic learning. Individual specific needs of students with disability can be accommodated through assistive technology using animated instructions in the learning environment depending on their individual learning styles. The purpose of this study is to investigate the effect of using animated instruction on language development of Children with Hearing Impairment. Single group pre post test design was followed in the study. The sample of this study consisted of eleven students with Hearing Impairment in the age range of 8 to 11 years studying in special school. To achieve the aim of the study, a pre/post-test with questions on preposition and conjunction was constructed to measure students' performance in usage of preposition and conjunction. The selected sample was taught using the developed animated computer based instruction for 20 sessions. The findings of the study indicated that there were significant differences in the language development (usage of preposition and conjunction) of the selected sample through Animated Instruction.*

**Key Words:** Animated Instruction, Children with Hearing Impairment, Language Development

## **Introduction**

Children with Disability are in great requirement of appropriate educational measures for helping them in meeting out their special needs and to cope with their deficits or extraordinary abilities. Children with disability face numerous barriers to attending school and receiving appropriate education. An essential practice required for students with disabilities to access and progress in the education is the provision of accommodations and modifications in the curriculum. Meaningful access to assistive technology and accessible technology for children with disabilities is critical for many to access and benefit from education. For children with disabilities, technology can give access to learning opportunities previously closed to them.

## **Computer Based Instruction (CBI)**

Computer-based education has expanded the classroom experience by providing students with material directly pertaining to their selected subjects of interest, analyzing students' responses immediately to determine whether or not to spend more time on a specific topic. Moreover, computers are being used to expand the learning experience in different subjects in classrooms (Slavin, 2003). They can be used to teach new skills or to help improve subjects that a student has been experiencing difficulties with. Multimedia applications have major improvements for students who encountered difficulties learning in a usual print environment.

## **Language Development of Children with Hearing Impairment through Animated Instruction**

Hearing impairment is a generic term including both deaf and hard of hearing which refers to persons with any type or degree of hearing loss that causes difficulty working in a traditional way. It is well recognized that hearing is critical to speech and language development, communication, and learning. Children with hearing impairment may have difficulties with: Limited vocabulary and English grammar and syntax. Preposition and conjunction places important role in the academic learning and language development which are used in day to day life.

Mioduser et.al (2000) examined the unique contribution of computer-based instruction when compared with more conventional modes of instruction (i.e. teacher instruction with textbooks) to early reading skills acquisition, as well as the effects of specific features of computer technology on early reading skills performance. Results of the study clearly indicated that children at high risk who

received the reading intervention program with computer materials significantly improved their phonological awareness, word recognition, and letter naming skills relative to their peers who received a reading intervention program with only printed materials and those who received no formal reading intervention program.

Clendon (2006) conducted a research on the use of computer software with children with cochlear implants. Findings of the study suggest that the use of computer software may be an efficient method for improving the speech and language skills of children with cochlear implants.

Hence the need has arrived to know about the effect of animated instruction in developing language aspects of Children with Hearing Impairment. The present study attempts to develop language aspects particularly preposition and conjunction which is very important in academic learning of the Children with Hearing Impairment through animated instruction.

### **Objectives of the study**

- To study the effect of animated instruction on developing language aspects of the selected sample.
- To compare the pretest and post test performance of the selected sample in preposition and conjunction through animated instruction.

### **Research Questions**

1. Will animated instruction develop the language aspects of Children with Hearing Impairment?
  - 1.1 Is there any significant difference in the overall pre-test and post test scores of the selected sample in Preposition through animated instruction?
  - 1.2. Is there any significant difference in the overall pre-test and post test scores of the selected sample in conjunction through animated instruction?
  - 1.3. Is there any interrelationship between the mean scores of the selected sample in preposition and conjunction through animated instruction?

### Methodology

The objective of the current research is to study the effect of animated instruction in developing language aspects of the selected sample. Single group pre and post test design which is categorized under informal experimental design was employed in the study.

### Sample size

Eleven children (six male and five female) with Hearing Impairment in the age range of 8 to 11 years studying in a residential special school for Children with Hearing Impairment were selected as sample for the present study.

**Table 1: Details of Sample**

Class	Age	Male	Female	Total
III	8 -9	2	1	3
IV	8 -9	2	2	4
V	9 - 11	2	2	4
<b>Total</b>		<b>6</b>	<b>5</b>	<b>11</b>

### Research Procedure

Animated software in flash containing the selected preposition and conjunction with pictures was developed to provide intervention to the sample. The developed animated software with selected preposition and conjunction was transacted to the selected sample. A Questionnaire with 10 Preposition and Conjunction sentences carrying 4 multiple options was developed to study the effect

of using prepositions and conjunction in language. The reliability and validity for the developed software and questionnaire was established appropriately. Current level performance of the children preposition and conjunction was assessed by administering the developed questionnaire (pre-test). The developed animated software with selected proposition and conjunction was administered through animated instructional package to the selected sample of eleven children for 20 sessions which spread over for 4 weeks (1 hour per day for 5 days per week.). After 4 weeks of intervention same questionnaire with preposition and conjunction used for pretest was administered (post test) and the scores were obtained. The collected data was analyzed both quantitatively and qualitatively to arrive at conclusion for the present study.

## Results and Discussion

### Research Question No.1.1

**Is there any significant difference in the overall pre-test and post test scores of the selected sample in Preposition through animated instruction?**

.Paired t test on pre test and post test scores, mean and standard deviation was administered to measure the level of improvement in learning preposition among the selected children with Hearing Impairment through animated instruction.

**Table 2: Analysis of the overall pre test and post test scores of Children with Hearing Impairment in Preposition through animated instruction**

	N	Mean	SD	df	t	Sig
<b>Pre test</b>	11	3.72	0.63	20	8.7513	0.00001
<b>Post test</b>	11	9.72				

From the table (2) it is found that, the t-value in the pre test and the post test is (8.7513) and this value is significant at (P=0.00001) which is lesser than (0.01) level of significance. Therefore, it is inferred that there is significant difference in pre test and post test scores of selected sample in

learning preposition through animated instruction. And since the mean score of post test (9.72) is greater than the mean score of pre test (3.72), it can be said that the selected sample have progressed significantly in learning preposition through animated instruction.

### Research Question No.1.2

**Is there any significant difference in the overall pre-test and post test scores of the selected sample in conjunction through animated instruction?**

Paired t test on pre test and post test scores, mean and standard deviation was administered to measure the level of improvement in learning conjunction among the selected children with Hearing Impairment through animated instruction.

**Table 3: Analysis of the overall pre test and post test scores of Children with Hearing Impairment in Conjunction through animated instruction**

	N	Mean	SD	df	t	Sig
<b>Pre test</b>	11	2.54	0.70	20	9.5216	0.00001
<b>Post test</b>	11	9.27				

From the table (3) it is found that, the t-value in the pre test and the post test is (9.5216) and this value is significant at (P=0.00001) which is lesser than (0.01) level of significance. Therefore, it is inferred that there is significant difference in pre test and post test scores of selected sample in learning conjunction through animated instruction. And since the mean score of post test (9.27) is greater than the mean score of pre test (2.54), it can be said that the selected sample have progressed significantly in learning conjunction through animated instruction.

**Research Question No.1.3****Is there any interrelationship between the mean scores of the selected sample in preposition and conjunction through animated instruction?**

Data gathered from 11 students with hearing impairment was used for finding out the interrelationship between learning preposition and conjunction. Correlation was used to find out the interrelationship between learning preposition and conjunction.

**Table 4: Correlation between learning preposition and conjunction**

	N	Mean	R
<b>Pre test</b>	11	2.54	- 0.1398*
<b>Post test</b>	11	9.27	

\*  $r = - 0.1398$  Negative Correlation

Analysis of the data reveals the fact that mean scores of preposition does not substantially correlate with the mean scores of conjunction of the sample selected at 5% level. A negative correlation exists between the preposition and conjunction. The negative interconnectivity throws light on the fact that the sample has no interconnection between the preposition and conjunction learning.

**Educational Implication of the Study**

1. Educational institutions enrolling Children with Hearing Impairment can be equipped with computers and appropriate animated software which will help the children to learn the concepts with ease rather than oral presentation.
2. Computers can be used in all the aspects of curriculum transaction including evaluation which will facilitate children with hearing impairment to express their ideas freely with ease.

### Recommendations for further Research

1. Teacher handling children with hearing impairment should be equipped with computer skills in order to meet the needs of such children.
2. Studies can be conducted on young deaf children to develop their language skills since children with hearing impairment encounter with various other problems in academics and daily routine activities due to delay in language acquisition.
3. Similar other studies can be conducted on developing other aspects of language using computer software since this will motivate the disadvantaged learners to learn the concepts with ease.

### Conclusion

Computer based instructions aims to construct a sequence of learning activities which leads to the benefits of multiple representations. Animated instruction to teach language aspects to children with hearing impairment helps such children to develop their language through individualized instruction taught through multimedia flash. The learning activities with pictorial animation presentation help such children to overcome the language difficulties they face in understanding the concepts when presented orally. Thus animated instruction through flash will enable children with hearing impairment to develop the language aspects effectively at their own pace which in turn will facilitate their academic learning.

### References

- 1) Clendon, S., Flynn, M. C., & Coombes, T. (2003) Facilitating speech and language development in children with cochlear implants using computer technology. *Cochlear Implants International*, 4(3), 119-136 retrieved on 20.12.2017 from [https://kuscholarworks.ku.edu/.../1808/.../Ambrose\\_ku\\_0099D\\_10589\\_DATA\\_1.pdf](https://kuscholarworks.ku.edu/.../1808/.../Ambrose_ku_0099D_10589_DATA_1.pdf)
- 2) Convention on the Rights of Persons with Disabilities. New York, United Nations, 2006.
- 3) Houghton, B. (2004) Educational Software: Computer Assisted Instruction. Retrieved October 26, 2015 from <http://www.ceap.wcu.edu/Houghton/Learner/Look/CAI.html>.
- 4) Mioduser, D., Kasper, H. & Leiter, I. (2000) The learning value of computer-based instruction of early reading skills. *Journal of Computer Assisted Learning*, 16(1), 54-63 Retrieved on 24.09.2014 from [onlinelibrary.wiley.com/doi/10.1046/j.1365-2729.2000.00115.x](http://onlinelibrary.wiley.com/doi/10.1046/j.1365-2729.2000.00115.x)

- 5) Reddy, G.L. and Ramar, R. (1997). Effectiveness of multimedia based modular approach in teaching English to slow learners. *Disabilities and Impairments*, 11 (1), 33-44, ISSN No. 0970 356X.
- 6) Slavin, R. E. (2003) *Educational Psychology: Theory and Practice* (7th ed.). Allyn and Bacon, Boston.
- 7) University of South Carolina (2012) What is Assistive Technology? retrieved on 02.08.17 from <http://www.sc.edu/scatp/cdrom/atused.html>
- 8) Ysseldyke, E.J. & Algozzine, B.(2009) *Special Education A practical approach for teachers*. Kanishka Publishers & Distributors, New Delhi

## A Case Study on Liliane School for the Mentally Retarded

**A. Sasikala**

Ph.D Research Scholar

Mother Teresa Women's University, Kodaikanal

### Introduction

Mental retardation is one of the most well known social problems in our country. It is often observed that the mentally retarded children have several problems, particularly a problem related to learning. The researcher as a teacher of college of education which forms and trains the teachers for secondary school, selected this Liliane School for the Mentally Retarded in order to find out specific climate for effective learning which will enable to stand on their own. The study also intends to investigate the relationship between the climate of the inst. and teachers. The researcher used various records and documents, and also conducted interview of teachers and management, and direct observation of the students for collecting data. The investigator strongly believes that the study will help her personally as a teacher of the college of education in order to prepare efficient and effective teachers for helping the 1 children. And also the research of the study will enable her to make appropriate recommendations for enhancing the quality of education of the Mentally Retarded children.

### Profile of the School

<b>Name of the School</b>	:	<b>Liliane School for the Mentally Retarded</b>
<b>Year of established</b>	:	<b>1992</b>
<b>Motto</b>	:	<b>“Do Good, Spread Happiness”</b>
<b>Nature of the School</b>	:	<b>Co-Education School</b>
<b>Located in Rural / Urban</b>	:	<b>Rural</b>

<b>Admission of the students</b>	<b>:</b>	<b>Without discriminating against caste and Creed</b>
<b>Total strength of students</b>	<b>:</b>	<b>546</b>
<b>Admission in 2017-2018</b>	<b>:</b>	<b>92</b>

### **Management**

This is a minority institution run by the Congregation of the Immaculate Conception-Madurai (CIC Sisters) Damien Society.

### **Objectives**

- To train the mentally impaired children to take care of their own needs from morning to evening.
- To help the parents and relatives in taking care of their children
- To create awareness among the parents of these children
- To help the children to develop their self- respect and their dignity as human beings.

### **Origin of the School**

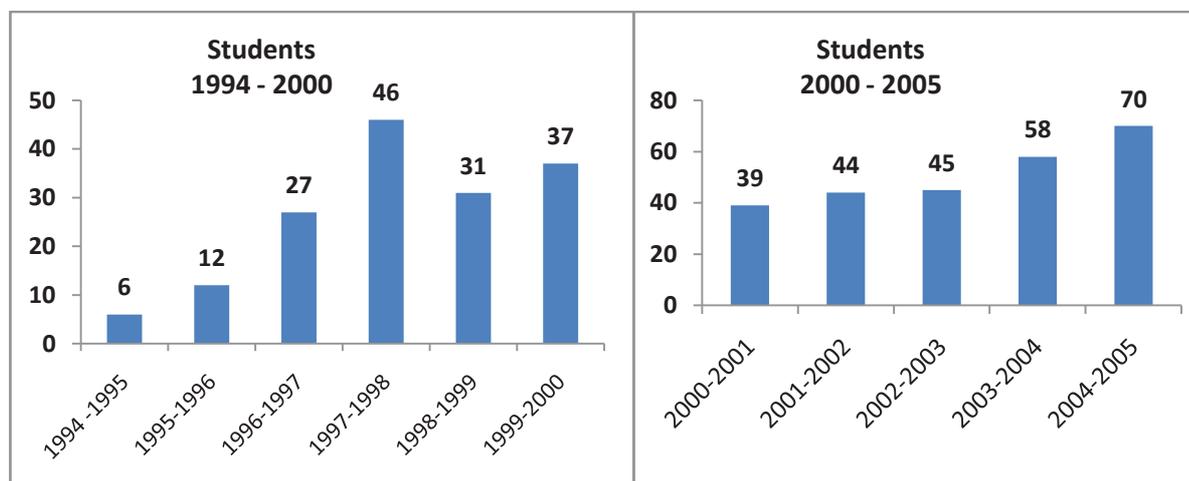
In the year 1992, a girl child was found in- front of the gate of the Fathers' residence at Kalkottai, Nilakottai. The child was chained to the gate. The Fathers handed over the child to the Damien administrator Rev. Dr. Agnes Xavier CIC. The child was named as Ananthi and the sisters took care of the child along with the physical handicapped children. The consultation with physically handicapped children housed there, the sisters retained the child and also started admitting other mentally impaired children. Thus the school for the mentally retarded was established in 1992.

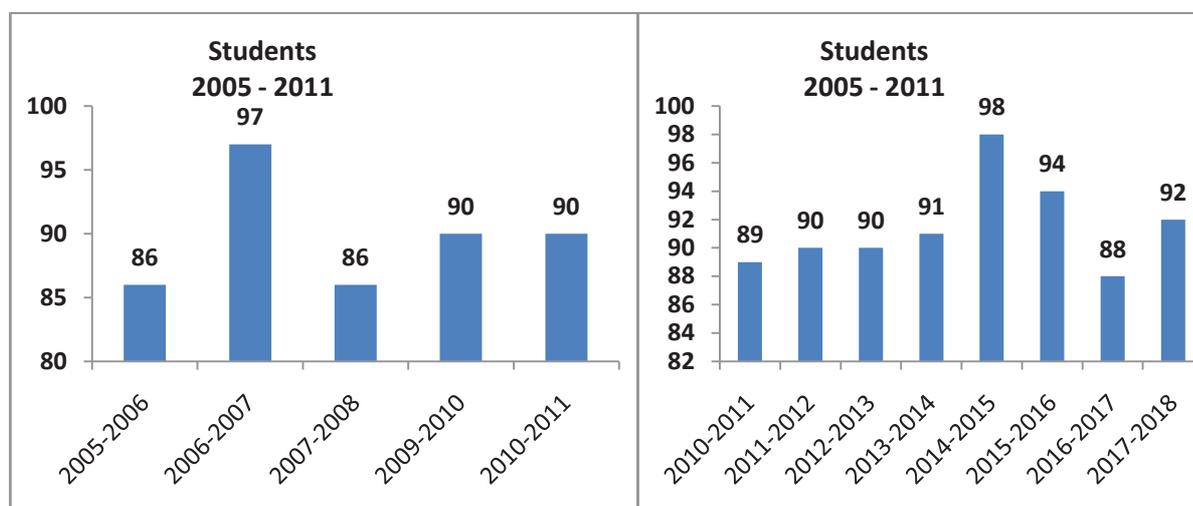
### Early Stage of the school

In order to provide special care and training to these unfortunate MR students the present need based special school was established with a well-qualified staff. So, the management decided to send Sr. Esther Angel Mary CIC to Balavihar in Chennai for special training. After completed her studies in 1995, she took charge for that children. The strength at the beginning was 6 students. After a year the students' strength increased to 27. Thus the care taking center was converted into a special school.

In the second stage, the government had given recognition to the school. In order to motivate the parents and children to come to the school the hostel was established. After Sr. Esther, Sr.Rex Emerncia took charge and administered the School from 1998-2003. Sr. IrudhayaMary a committed, competent and kind teacher has been functioning as Headmistress from 2003 till date with the guidance of the dynamic administrator Rev.Dr. Agnes Xavier.

### Growth of the Students' Strength





The figures show that the growth of the students strength in the school.

### Infrastructure of the Institution

#### Location

Liliane Mentally Retarded School is located in Diravia Nagar, a kilometer away from Nilakottai in Dindigul District.



#### Admission

There is no discrimination in their admission based on the caste, creed, class and gender. The children affected with Cerebral Palsy, Autism, Down syndrome and Mentally Retarded are admitted in the school. Every child is admitted on condition that he/she should be able to walk or stand. Partially able to walk or stand is also accepted and they are given physiotherapy to walk. Any child of age is five and above and the mental age 2 are admitted.



### School students with teachers

#### Infrastructure

A separate block is built with required number of classrooms to facilitate quality training to the children. The students are classified based on their mental age. Separate class rooms are provided for different groups. Clean and neat separate toilet facilities for both boys and girls are available. Separate hostel facilities are available for boys and girls. A staff room is provided for the teachers. A warden and two women maintain all these facilities. Food is provided for everyone and sometimes warden and the staff feed them. It is a totally pollution free campus. Play grounds are available both for indoor and outdoor games. Individual Guidance and counseling is offered to every child based on their level of understanding. Nutritious food and purified water are provided in a neat dining hall is provided. Thus the total environment is very conducive for the all-round formation and training.



#### Infrastructure for classrooms and hostel

## Fee Collection

Minimum fee Rs.300/- per month is collected from every child so that the parents feel that they are contributing towards the training of their children. The poor children are exempted even from this small contribution.

## Facilities Available

### (i) Medical Treatment

The children affected by fits are treated with medicines given by the government. In addition to this they are offered all kind of medical care through Sophia Hospital which is situated in the same campus. For specialized treatment they are taken to the Madurai and Dindigul Government hospitals.

Physiotherapy is given regularly to the children and thus they are enabling to

- Squat and sit
- Stand without support
- Walk with the help of Caliper

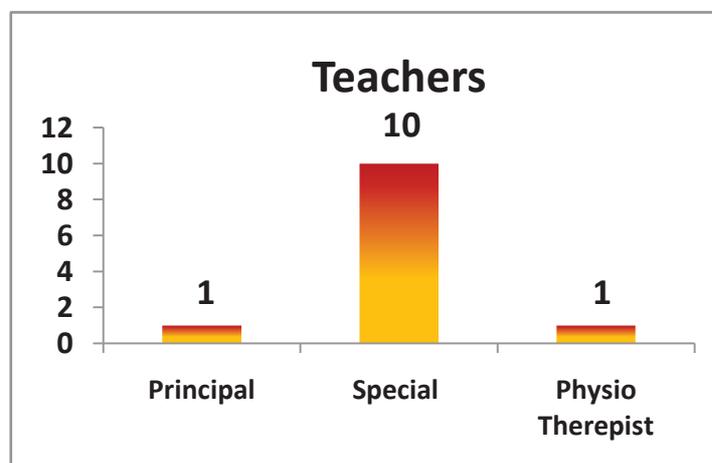
### (ii) Transport facilities

The school is situated in the main road. So the transport is available at any time. The Government provides concession in the bus fare, and also gives free transportation for the child and the caretaker.

### (iii) Communication facilities

At least five phone numbers from the parents and relatives are collected in order to contact them at any time. Immediate responses are expected from their parents in their emergency time.

## Teachers and their Training



Totally there are 12 teachers. Except physiotherapist all are female trained teachers with Special B.Ed. Those who come for their internship training during B.Ed course are show their willingness to work in this institution. So, there is no formal recruitment. The basic pay is reasonable. The incentives are raised periodically. PF and loan are also available for the teachers. State and Central Governments provide minimum funds for the development of the children.

The teachers have in-service training offered by CRE (Continuing Rehabilitation Education). They also attend the seminars and workshops which are related to their special education. They can collaborate with all the teachers in other institutions. They also regularly they updated their knowledge through the use media.

## Classification of the Classrooms

The classes are divided based on the kinds of trainings as follows.

1. Bridge
2. Pre-Primary
3. Primary
4. Pre-Vocational

The students are classified based on their levels of mental ability.

1. Mild
2. Moderate
3. Severe
4. Profound

Based on the above mentioned classification, the class rooms are available for the students.

### **Curriculum for the students**

The academic year is divided into three terms for a year.

- |          |                       |
|----------|-----------------------|
| I Term   | - July to September   |
| II Term  | - October to December |
| III Term | - January to April    |

They are trained only three or five skills in a term. Every term there is an assessment based on the training. Different methods and techniques relevant to the individual child are adopted. **MDPS** (Madras Development Programming System Behavioral Profile) is used for teaching. Individual Training, Group Training and Special training for ADL Skills (Eating, Dressing, Bathing and Toilet training) are given by the teachers. After coming from annual vocation the skills revised for every student.

### **Teaching and Learning**

- **Bridge Class**

Children in this class are taught Daily Living Activities and other activities like:

- Eating, Toileting and dressing
- Holding objects and arranging Beads
- Scribbling with pencil
- Greeting others
- Small play likes swinging, See-saw and ladder-ramp etc.
- Washing hands before and after eating
- Clean running rose
- Blowing candle and paper bits

- **Pre-Primary Classes**

Pre-primary Children are taught other Activities along with ADL skills like

- Brushing teeth
- Eating without spilling
- Cleaning after defecation
- Dressing by self
- Listening and acting accordingly
- Using two syllable words
- Tracing with pencil and colouring
- To say 'Please' 'thank you' and sorry
- To name the body parts, vehicle and fruits
- Blowing whistle and ballon
- Writing/Tracing name
- To tell name (own name, father and mother)
- Identifies the color
- Washing the face and by using soap
- Arranging puzzles and
- Catches the ball

- **Primary Classes**

The primary class children are taught the following:

- To read and write
- To take bath dress and to trim nails
- To read three letter words
- To copy the name and printed sentences
- To add and subtract
- To differentiate colours and shapes
- To draw and fill colours
- To say sorry when made mistakes
- To say small stories and rhymes.

- To apply powder on face, oil on hair, hands and legs
- To tell hour & minute hands.

- **Pre-Vocational classes**

- Reading ,writing and counting
- Cleaning, washing and dressing
- Time and money concept
- Singing and drawing pictures
- Making covers and collage and Gardening work and sweeping.

### **Training - Meal Time Activities**

**Lunch Break activity:** 12.45 pm to 2.00 pm

During this time, the wardens help the children to have food on their own without spilling and feed the children who are unable to have on their own. Also they trained to ask as much as food and curry they need.



### **Hostel Training**

- In the hostel, the grownup children motivated to do their biological secretion.
- They involved in morning duties (Sweeping and mopping the rooms and cleaning the surrounding places).
- They water the plants and weed the grass.
- They help in the kitchen to cut the vegetables and to clean the vessels.
- Mild Cerebral Palsy (CP) children take care of the severely affected children.



## Co-curricular Activities

### Games and Sports:

Children have training in indoor and outdoor games in alternative days of the week.

#### Indoor Games:

- Carom
- Chess
- Chinese checkers
- Ludo

#### Outdoor Games:

Every day after 3p.m., the children are taught outdoor games.

- Kho-Kho
- Kabadi
- Cricket and Throw Ball
- Standing Long Jump

### Competitions and celebrations

Students participate many competitions like

- 50 meters dash

- 100 meters dash
- Standing Long Jump
- Throw ball
- Cricket ball and
- Shot put

The school trained the students to remember the important days by celebrating

- Independence day
- Republic day
- Children's day
- Deepavali
- Pongal and
- School day

### **Sustainability**

- The school gets the co-operation from the parents to increase the local contribution.
- The school also gets donations and financial assistance from our congregation to some extent.

### **Outstanding achievements from 2014-2017**

- On 17.07.2014, Indian council for Child Welfare, Tamil Nadu had conducted district level drawing competition. 10 students participated and 3 of them received certificates for the best drawing.
- On 05.11.2014, 30 students participated in drawing competition conducted for Differently abled Children and won 3 medals and 18 prizes.
- District level sports were conducted on 28.01.2015 at Akshaya Matric Hr.Sec. School, Seelapadi by District sports and youth welfare organisation. 25 students participated in 50meters, 100meters running, standing long jump, throw ball, cricket ball throw and shot put. First prize winning throw ball team, 7 students for athletes were selected for State Level Competition. They also participated in differed games and won 41 prizes.

- The throw ball team and the seven students who were selected from district level competition had participated in state level sports competition conducted for 3 days from 17.04.2015 to 19.04.2015 in Seethakadi Sethupathy stadium at Ramanathapuram.
- The throw ball team got state first and received Rs. 5000/- and certificates for each one of them. Among athletes cricket ball throw got first prize of Rs.5000/-and certificate, in shot put got second prize of Rs.3000/- and certificate.
- On 27.08.2015 six children from our school drew pictures and submitted for Child Welfare Organization, India.
- Twenty students from our school participated in drawing competition conducted on 31.08.2015 by differently able Welfare Trust. Among them 10 children received prizes and 10 of them received certificates.
- Our school children participated in District level sports competition held on 07.10.2015 in sports ground, Dindigul. The children won 1st prizes in 100 meters wheel chair race, Soft ball throw and Throw ball (Girls team) and won 2<sup>nd</sup> prize in Throw ball (Boys team), shot put and Standing long jump 1<sup>st</sup> prize winners were selected for state level competition.
- On 28.10.2015 four children participated in special children Talent show programme organised by C.S.I College, Madurai. The children won 1<sup>st</sup> prizes for solo singing, group singing, group dance and colouring.
- State level competition was conducted from 02.03.2016 to 04.03.2016 in Alagappa College, Karikudi, Sivagangai Dt. Our School Students participated and won 2<sup>nd</sup> prize for standing long jump and received Rs.3000/- as cash award.
- The State level competition was conducted for the differently able children in Kongu Nadu Engineering College, Namakkal, Trichy. 11 children from Liliane School participated and stood first place in Throw ball, Table tennis, Soft ball throw and Standing long jump and second place in shot put and 50 meters run. They also received certificates for the same.



### Awards

- The district collector Mr. Venkatasalam Congratulated the services rendered to the mentally retarded children and gave a Certificate of Award during the celebration of the world disabled day.
- Mrs. Vimala Jeyaseeli - Special Teacher was given Best Teacher Award by the District Collector on 03.12.2014.
- Sr.Irudaya Mary was given Best Teacher award for the year 2016 by the District Collector, Dindigul.



### Job satisfaction of the Teachers

A separate questionnaire consisting of 20 items was administered to evaluate their level of satisfaction in their teaching. Out of 20 questions 10 questions to evaluate their training and their job satisfaction and five for finding difficulty level in their work environment. The result shows their positive levels of satisfaction in their service. It may be due to the climate and environment of the school. They expressed that the administrator and principal respect and recognize their involvement and hard work in their jobs. The teachers seem to enjoy among disabled children. Though it is very difficult to give the training at the initial stage, they love the children as their own. They are very proud of their school, for they feel that they are contributing to the growth and development of the country and above all they are serving God through this valuable mission.

### Future Development and Placement

After completing their training, the children are motivated to have some vocational training in view of getting employed in some jobs. To achieve this goal the administration established a home 'IniyaUdayam'. This home was established by the Damien management. The Tamilnadu government supports this by giving managing grant to maintain the home. From 2013 onwards, it is converted into Government center for female Mentally Retarded children as per the government rules and regulations. There are 40 students at the age of 14 and the above.



### The objective of this home

- To train the students take care themselves
- To make them to involve in self-employment
- Tailoring Training

- To train the children for preparing house hold articles (Surf, Phenoil, candle)and chalk piece.

To attain the above mentioned goals and to make the children as dignified people in the society, the home provides vocational training and space to implement it under the guidance of Sr. Preethi. She is the Manager for this home. Some members of the with adequate training teach them and manage the students. They teach and train them to prepare socially useful products. The products are sold to various institutions and private houses. By purchasing these products the public encourages the mentally retarded children.



### SWOC Analysis

According to the researcher observations and interview of the teachers the analysis is made in order to help the management and teachers.

#### Strengths

- The school is located in a pollution free environment
- The vision, mission and objectives of the institution are laudable
- Adequate infrastructure facilities are available
- Well trained competent, committed, compassionate and creative teachers are in place
- Since the management provides reasonable salary, helpful work facilities and above all love and appreciation of their work, the teachers continue to stay in the same institution.
- The formation and training for al-round development of the MR children are provided
- Placement and rehabilitation are given top priority

**Weaknesses**

- Long absence of students cause difficulty in training
- Indifferent attitude of the parents
- All are not placed in government aided jobs
- Paucity of government aid

**Opportunities**

- Location of the institution in the rural area enables the management to help the children of uneducated rural people.

**Challenges (Threads)**

- To educate and motivate the uneducated parents on how to take care of their Mentally Retard children.
- To provide rehabilitation and placement to all.
- To recruit competent, committed, compassionate and creative teachers in this rural area.

**Recommendations**

- All the teachers could be trained for integrating ICTs in teaching learning process.
- The staff could be encourage to participate workshops seminars conducted in other for enhancing their skill and knowledge
- The management could explore various projects and program available with various agencies for enriching the training and education of the special students.
- Some competent teachers could be encouraged to take up research on the psychology and training of the special children.
- The institution could establish collaboration and linkage with similar institutions and research centers of the training and education of the special children.
- To develop the action plan for the future of the institution.

## Conclusion

The researcher is in praise and appreciation for its deeply committed wonderful contribution to the Nation building by forming, training and rehabilitating these unfortunate Mentally Retarded children. The management and staff are very much aware of the four pillars of the objectives of the 21<sup>st</sup> century education. i) learn to know, ii) learn to do iii) learn to be iv) learn to live together. The mission and objectives of the institution are very much geared towards the achievement of the above mention four objectives.

## References

- 1) Documents of Lillian School
- 2) Admission Register and Attendance Registers of the Teachers and the Students
- 3) Syllabus of the School & Syllabus of **MDPS** (Madras Development Programming System Behavioral Profile)

## Stress of Teachers Handling the Students with Disability at School Level

**Dr. P. Ponnusamy**

Assistant Professor, Department of Education  
The Gandhigram Rural Institute, Deemed to be University  
Dindigul District, TN  
pponnusamy56@gmail.com

**Dr. A. Sathiyaraj**

Assistant Professor, Department of Education  
The Gandhigram Rural Institute, Deemed to be University  
Dindigul District, TN  
edusathiya@gmail.com

### Abstract

*The main objective of the study was to identify the level of stress of teachers handling students with disability. The subjects were 62 resource teachers of Coimbatore, Tirupur, The Nilgiris and Salem districts of Tamilnadu state. The Teachers' Stress on Working Condition Scale –TSWCS was used as the research tool in the study. Statistical techniques - mean, SD and 't' test were used for analyzing the collected data. The main finding of the study reflected that the selected teachers are having medium level of stress.*

**Keywords:** Special Education, Resource Teacher, Stress and the Working Condition.

### Introduction

A number of researchers have identified two major factors that result in unhealthy amount of stress for teachers: work and home. Both factors serve to create reciprocal problems in each of the environments. The first of these factors is work. Work stressors include such problems as task overload, also described as a heavy workload and/or inadequate time for preparation. A second problem is lack of control over activities and outcomes. Examples include lack of teaching tools, inadequate or non-existent resources, and ineffective administrators. A third problem is lack of

satisfaction concerning performance, stemming from negative and infrequent positive feedback. Another aspect is unpredictable and uncontrollable change. Interpersonal conflicts may include disruptive students and problems with colleagues, resulting in undue stress. Finally, feelings of inadequacy are cause for much worry to individuals. Everyone wants to feel as if he or she can meet expectations and has accomplished goals.

A second factor of stress is the home. There is often an interaction between pressures at home and those at school. Too often, teachers are too exhausted to do things that they want to do away from school. The stresses of work can result in the deterioration of the home life. Due to the demands of work, family members find it increasingly difficult to be supportive of the parents / spouse. Ironically, the pressures of work stress create pressures at home, adding to the stress of work. As you can see, stress in both environments can result in a never – ending cycle of problems that are can be detrimental to mental and physical well-being.

### **Need and scope of the study**

In recent years, problems of stress among teachers have contributed to high rates of overturn within the teaching profession. Currently, stress is noted as the number one factor in a teacher's decision to leave the profession. Many people fail to realize that stress is a very natural and important part of life. We need stress (Eustress), but not too much stress for extended periods of time (distress). Our body is designed to react to both types of stress. Eustress helps keep us alert, motivates us to face challenges, and drives us to solve problems. Eustress is good for us and can be considered as both necessary and normal. Distress happens when our bodies over-react to situations. It leads to what is referred to as a "fight or flight" reaction. Undoubtedly, stress is a major problem for today's teachers. Having understood the importance of stress free condition in the working place of the teachers handling the students with disability, the investigators have undertaken the present study. This study will throw light on the level of stress of teachers working with disability at school level. The findings of the study will help the administrators to understand and realize the problems faced by the teachers in their working condition.

### Objectives of the study

The study has the following objectives.

1. to identify the level of stress of teachers handling students with disability in Tamilnadu state and
2. to know whether there is any significant difference between the stress of male and female teachers handling students with disability.

### Methodology

#### Sample

About 255 Cluster Resource Centres are functioning with 250 Resource Persons in Tamil Nadu. Resource teachers handling the students with disability at school level of Coimbatore, Tirupur, The Nilgiris and Salem districts of Tamilnadu were the target population of the this study. A total of 62 teachers were selected as the sample of the study by using the simple random sampling method. Among them, 30 were male and remaining were the female teachers.

#### Research Tool

The Teachers' Stress on Working Condition Scale –TSWCS was used as the research tool in the study. It was in the form of Likert type and contains the items to bring out the stress related 1. Pre – Preparation to Class, 2. Handling Subject, 3. Handling Students and 4. Administration components. The TSWCS consists of 20 statements (each five in the above said components). The statements are subjects to respond on five point scale such as Never: 0, Rarely: 1, Sometimes: 2, Often: 3, and Very Often: 4. Since the total number of statements given in the scale is 20, the maximum score of the tool is 80. If the score of the sample is between 0 – 20, it means that the sample have Good control over stress. Similarly, the scores between 21 – 40 indicates low level of stress, 41 – 60 indicates the medium level of stress, and 61 – 80 means the high level of Stress (Needs Counseling).

### Data analysis

Statistical techniques - mean, SD and 't' test were used for analyzing the data collected from the selected sample. They are presented as follows.

### Stress Score of Teachers as per the variables

Table -1

Stress	Mean	Max. Score
<b>In General</b>	<b>52.71</b>	<b>80</b>
Male	49.45	80
Female	55.96	80
Pre-Preparation	11.76	20
Subject	11.87	20
Students	13.98	20
Administration	15.1	20

The table-1 shows that

- In general, the selected teachers are having medium level of stress since their stress mean score is between 40 and 60.
- Male teachers are having less stress than female teachers.
- Mostly, the selected teachers have more stress in handling students with disability and also in administration side of work conditions.

### Analysis on Testing of Significance

#### Stress Vs Gender - Male x Female

The investigator calculated 't' value to find whether or not there is significant difference between the mean score of male and female teachers at 0.05 level.

Table -2

Gender	N	M	SD	t
Male	30	49.45	2.34	3.683
Female	32	55.96	3.79	

From the table-2, it is identified that the calculated value (3.683) is greater than that of the table value and therefore it is interpreted that there is a significant difference between stress level of male and female teachers handling with students with disability.

#### Stress in Pre-Preparation Class work Vs Gender

The investigator calculated 't' value to find whether or not there is significant difference between the mean score of male and female teachers at 0.05 level.

Table -3

Pre-preparation	N	M	SD	t
Male	30	10.24	2.24	1.128
Female	32	13.29	1.86	

From the table-3, it is identified that the calculated value (1.128) is less than that of the table value and therefore it is interpreted that there is no significant difference between stress level of male and female teachers handling with students with disability in terms of classroom pre-preparation works.

### Stress in Handling Subject Vs Gender

The investigator calculated 't' value to find whether or not there is significant difference between the mean score of male and female teachers at 0.05 level.

Table -4

Subject	N	M	SD	t
Male	30	11.14	2.01	0.498
Female	32	12.56	1.9	

From the table-4, it is identified that the calculated value (0.498) is less than that of the table value and therefore it is interpreted that there is no significant difference between stress level of male and female teachers handling with students with disability in terms of handling subject.

### Stress in Handling Students Vs Gender

The investigator calculated 't' value to find whether or not there is significant difference between the mean score of male and female teachers at 0.05 level.

Table -5

Students	N	M	SD	t
Male	30	16.46	1.58	2.062
Female	32	11.49	2.86	

From the table-5, it is identified that the calculated value (2.062) is greater than that of the table value and therefore it is interpreted that there is a significant difference between stress level of male and female teachers handling with students with disability in terms of handling students.

### Stress in Handling Administration Work Vs Gender

The investigator calculated 't' value to find whether or not there is significant difference between the mean score of male and female teachers at 0.05 level.

Table -6

Administration	N	M	SD	t
Male	30	12.58	2.78	1.989
Female	32	17.62	1.39	

From the table-6, it is identified that the calculated value (1.989) is greater than that of the table value and therefore it is interpreted that there is a significant difference between stress level of male and female teachers handling with students with disability in terms of handling administration side works.

### Conclusion

The findings of the study show that the teachers handling the students with disability have medium level stress in their work condition. Therefore, the department authorities concerned should make necessary steps to solve these problems and help teachers to handling disabled school children to get feasible work conditions.

### Reference

- 1) Aggarwal. J.C and Agarwal S.P (1982), "Role of UNESCO in Education", New Delhi, Vikas Publishing house Pvt. Ltd.
- 2) Amarjit singh (2004), "Teachers Training – A reflective perspective", New Delhi, Kanishka Publishers, Distributors.
- 3) Biswajeet Pattanyak (2003), "Human Resource Training" New Delhi, S.chand & Company Ltd.
- 4) Srivastara. H.S. (2002), "Manual for schools, A guide for School Administration" New Delhi, S.Chand & Compnay Ltd.

## **A study on Community Based Rehabilitation of Persons with Disabilities with special reference to the initiatives of Welfare Services, Ernakulam**

**Semichan Joseph,**

Research scholar, Department of social work , Bharathidasan University, Tiruchirappalli.

**Dr. D Nirmala,**

Assistant professor, Department of social work , Bharathidasan University Tiruchirappalli

### **Abstract**

*Disability is an umbrella term for impairments, activity limitations, and participation restrictions, denoting the negative aspects of the interaction between an individual (with a health condition) and that individual's contextual factors (environmental and personal factors) (WHO 2011; WHO 2001). People with disabilities (PWD) therefore include those who have long term physical, mental, intellectual or sensory impairments resulting from any physical or mental health conditions which, interaction with various barriers, may hinder their full and effective participation in society on an equal basis with others (UN 2008). Community-delivered rehabilitation interventions are an important part of the continuum of rehabilitation services, and can help improve efficiency and effectiveness of rehabilitation services. Many CBR activities for PWDs are being carried out by various organizations across Kerala. The Welfare Services, Ernakulam is one of the pioneers in this field of intervention. The current study is a comprehensive examination on the Community Based Rehabilitation initiatives of welfare Services, Ernakulam.*

**Key words :** community Based Rehabilitation , PWD ,

### **Introduction**

Disability is an umbrella term for impairments, activity limitations, and participation restrictions, denoting the negative aspects of the interaction between an individual (with a health condition) and that individual's contextual factors (environmental and personal factors) (WHO 2011; WHO 2001). People with disabilities (PWD) therefore include those who have long term physical, mental, intellectual or sensory impairments resulting from any physical or mental health conditions which,

interaction with various barriers, may hinder their full and effective participation in society on an equal basis with others (UN 2008).

Community-delivered rehabilitation interventions are an important part of the continuum of rehabilitation services, and can help improve efficiency and effectiveness of rehabilitation services. Kerala state has been considered as a model for many developmental initiatives such as total literacy, community health care services, participatory development and three tier panchyath Raj model. Many CBR activities for PWDs are being carried out by various organizations across Kerala. The Welfare Services, Ernakulam is one of the pioneers in this field of intervention. In this context, the researcher conducted a detailed study on the functioning of Community Based Rehabilitation initiatives of welfare Services, Ernakulam.

### **Review of literature**

**Mario Biggeri, Sunil Deepak et al. (2012)** The research aimed to understand and measure the overall role and impact of CBR in improving the quality of life of persons with different types of impairments, as well as different demographic, social and economic backgrounds. They found that the CBR programmes have rather a positive impact on the well-being of persons with disabilities in the examined district in most areas of intervention: health, education, livelihoods (including opportunity for employment), disability rights, and social participation. It is also relevant to notice that the findings show that participation in CBR has an impact in terms of changing mentalities and fighting prejudice and exclusion.

**W.H.O, World Report on Disability (2011)** The Report of W.H.O. defines **rehabilitation** as a set of measures that assist individuals who experience, or are likely to experience, disability to achieve and maintain optimal functioning in interaction with their environments. A distinction is sometimes made between habilitation, which aims to help those who acquire disabilities congenitally or early in life to develop maximal functioning; and rehabilitation, where those who have experienced a loss in function are assisted to regain maximal functioning.

**Thomas M & Thomas MJ (2001)** This research investigated the factors which constitute barriers to access CBR activities and support. The researchers highlighted whether the CBR programmes are completely inclusive of all groups of individuals with disabilities. The results on the CBR coverage are very relevant. They disentangle the question of inclusion and access to CBR activities. Almost

60% of persons with disability are part of CBR. Furthermore the persons who are not part of CBR are less poor, have more mild disabilities and are older.

### **Objectives of the study**

1. To study the socio-economic background of PWDs.
2. To gather information on the various intervention strategies implemented by CBR agencies.
3. To suggest measures to increase the effectiveness of CBR programmes

### **Research methodology**

In this study, the researcher adopted descriptive research design to investigate and study the given problem. The PWDs staying in five Village Panchayaths (namely Karukutty, Malayatoor-Neleeswaram, Kalady, Kanjoor and Sreemoolanagaram) of Ernakulam District are supported by the Welfare Services, Ernakulam constitute the population of study. As per the records of the agency, there are 1246 PWDs supported in the area. The population includes both male and female sex and range within an age limit of 10-70. All members of the population are having partial or full physical disability. The researcher used stratified random sampling method for data collection. Researcher collected data from five wards in each Village Panchayath. The wards were considered as strata and 20 samples were being selected from each stratum using Tippet's Random Number Table technique. The researcher used both primary and secondary data for research from different sources. For collecting primary data a self prepared interview schedule is used.

### **Result Discussions**

The findings of the study revealed that community based rehabilitation initiatives of Welfare Services Ernakulam have a positive influence on the life of differentially able persons. A disability certificate is a document, which enables a person with disability to avail various welfare schemes and benefits from the government. The present study clearly states that 90 % of the respondents have a valid disability certificate. Among those who have the disability certificate 67% were states that, they got assistance from the welfare service CBR team to access the disability certificate. 71% of the respondents started small savings during the course of CBR program. It is a significant achievement because these savings will give more confidence to the PWDs.

The approach of various stakeholders towards persons with disabilities is important because a positive approach will enhance the motivation level of this underprivileged section of the society. It can be easily understood from the study that majority of the beneficiaries of the program were satisfied in the approach of CBR staff towards them. A good number of PWD were satisfied with the approach of their family members (57%). Another 43 % believes that approach of their family members towards them wants to change. In the opinion of the beneficiaries of CBR programme the approach of community leaders and PRI members towards them wants to change. 52 % of them are not satisfied with the approach of community leaders and 51 % of the persons with disabilities are not satisfied with the approach of PRI members. The study reveals that knowledge level increased among PWDs regarding their rights because of their association with CBR program. As per the result of the study 73 % of the respondents were linked with SHGs and CBOs through the efforts of WSE CBR program. Respondents believe that their social acceptance is increased due to their association in this project. The response on the aspect of sustainability in seems very promising about the positive impact created by the CBR program. Majority believes that they will be able to continue the efforts even after the project funding.

### **Recommendations**

1. The research indicates that knowledge and confidence of PWDs increased due to their association with the project so this is the right time to mobilize more individuals, who are not part of CBR initiatives in to the common platform.
2. Government agencies like social security mission and welfare department wants to promote more public awareness especially to prevent disability.
3. The basic principles of inclusion and community based rehabilitation can be including in school curriculum.
4. At present the job reservation is only in public sector. As per the findings of the study researcher would like to suggest that Employment reservation need to extend in private sector too.
5. NGOs need to provide more capacity and training for their CBR staff to ensure more effective implementation of CBR.

## Conclusion

This research examined the results of CBR initiatives by welfare services Ernakulam in five Village Panchayths of Ernakulam district of Kerala State, India. The research underline that the CBR programmes have rather a positive impact on the wellbeing of persons with disabilities in the project area in most areas of intervention such as Health, livelihood (including opportunity for employment), disability rights and social participation. It is particularly striking to notice that findings of the study show that participation in CBR has an impact in terms of changing mentalities and fighting prejudice and exclusion. In fact, participation in the programme has a positive effect on the ability to express one's opinion and on the opportunity to participate in the community's decisions. Although the results suggest that CBR program initiated by Welfare Service Ernakulam had a positive impact, there are still a number of issues that need to be addressed. These include proper continuation support for disabled people's organizations and ensuring support from civic society as well as government departments to ensure the future of CBR.

## References

### Books:

- 1) Finkenflugel H. (2004) Empowered to differ. Stakeholders' influences in community based rehabilitation. Rotterdam, Netherlands: Vrije Universiteit.
- 2) Bhanushali K. Kishorekumar (2009) Community Based Rehabilitation: An approach to empower the disabled, ICFAI University press, India
- 3) Wilkinson R. G. (2006) Social determinants of health, Oxford: Oxford University Press, London
- 4) Thomas Philippa (2005), Mainstreaming disability in development: India country report, Disability Knowledge and Research Programme, S. Chand, New Delhi, India
- 5) Groce, N., (2006). Disability, Public Health and Social Injustice: Social Injustice and Public Health, Oxford: Oxford University Press, London
- 6) Fisher, R. A. (1925) Statistical Methods for Research Workers, 1st Edition. Oliver and Boyd, Edinburgh, England

**Articles:**

- 1) Biggeri M., Deepak S., Mauro V., Trani J-F, Kumar J., Ramasami P., Bakhshi P. and Gariyappa R. (2011), Impact of Community-Based Rehabilitation (CBR) Programmes in Mandya District (Karnataka, India), Report, AIFO, Bologna
- 2) Finkenflügel, H., Cornielje, H. and Velema, J., (2008), The Use of Classification Models in the Evaluation of CBR Programmes, Disability and Rehabilitation, 30(5), 348-354
- 3) Alavi Y. and Kuper H. (Eds.) (2010), Evaluating the Impact of Rehabilitation in the Lives of People with Disabilities and their Families in Low and Middle Income Countries A Review of Tools, London School of Hygiene & Tropical Medicine - UK, CBM – Germany
- 4) Cornielje H. (2009). The Role and Position of Disabled People's Organizations in Community Based Rehabilitation: Balancing between Dividing Lines, Asia Pacific Disability Rehabilitation Journal, 20(1), 3-14.
- 5) Mitchell R. (1999). The research base of community-based rehabilitation, Disability & Rehabilitation, 21 (10 & 11), 459 – 468
- 6) Sharma, S., (2007), Community participation in community-based rehabilitation programmes, Asia Pacific Disability Rehabilitation Journal, 18(2), 146-157.
- 7) WHO (2011) WHO & World Bank World Report on Disability. Geneva, Switzerland: World Health Organization, 2011.
- 8) WHO, ILO, UNESCO and IDDC (2010), Community-based Rehabilitation: CBR Guidelines, Towards Community-based Inclusive Development, Geneva.
- 9) World Health Organization. (1989). Training in the community for people with disabilities: A Manual. Geneva: World Health Organization.

## Effect of Total Communication Approach (TCA) on Communication skills Among Children with Multi Sensory Impairments (MSI)

Sini.A.O

Research Scholar, CMR University, Bangalore, India.

SEN Teacher, Trivandrum International School, Kerala

### Abstract

*Communication is inevitable in all aspect of our lives. It is a basic human right for everyone. It is our fundamental duty to teach communication to children with multi-sensory impairments as they face potential barriers in the area of day to day communication. The purpose of the study was to find out the effectiveness of Total Communication Approach on Communication skills among children with Multi Sensory Impairments. Three preschool children with multiple sensory impairments participated in the intervention. Checklist for assessing Total Communication and individualized object of reference was developed to communicate the needs and choices. Multiple Baseline research design was used to see the effectiveness of intervention. The students were taught through the application of Total Communication Approach. The result indicated that there is a significant improvement in Communication skills performed by the participants. From the result it is evident that Total Communication Approach helps in enhancing Communications skills among children with Multi Sensory Impairments.*

**Key Words:** Total Communication Approach, Multi Sensory Impairment, Multiple Baseline design

### Introduction

More than one billion people in the world live with some form of disability, of who nearly 200 million experience considerable difficulties in functioning. (World Report on Disability.WHO, 2011). In the years ahead, disability will be an even greater concern because its prevalence is on the rise. One billion people have a disability with at least one in 10 being children and 80% living in developing countries. This report makes a major contribution to our understanding of disability and

its impact on individuals and society. It is very clear that the majority of people with disabilities in the world have an extremely difficult time with everyday survival. (Hawking, 2011)

All of us come in contact with more and more children with different combinations of impairment which pose a variety of difficulties. Most of the programs are designed to handle single category of disability and even today, it is difficult to appropriately identify them and understand their needs, with the result that these children are mislabeled and not provided need based services. (Rawal & Thawani, 2009). Corn & Ferrel, 2000 found that the number of teacher education programmes in multiple sensory impairments decreased while the numbers of children with MSI has increased.

A child who has auditory and visual impairments or have a combination of which causes such severe communication and other developmental and educational problems that he/she cannot properly be accommodated in special education programs that are developed solely for either the hearing impaired or the visually impaired child. Many people with MSI communicate using idiosyncratic, non conventional and non symbolic means of communication. And many who do have some conventional and symbolic communication are not readily understood by unfamiliar people. (Bell, 2012)

Some possible combinations of Children with MSI are the following:

- Vision impairment+ Hearing impairment+ delayed cognitive level+ delayed speech and language
- Vision impairment+ motor impairment+ delayed speech and language + delayed cognitive level
- Intellectual disability+ VI+HI+ Delayed speech and language
- Vision impairment+ Hearing impairment+ delayed cognitive level+ delayed speech and language+ Autism Spectrum disorders
- Low vision/ Blind + delayed speech and language+ ID+ CP

Children with MSI are expected to continue indefinitely and which impair performance in two or more of the following areas: Cognition, Communication, Ability to move around, Self-care, Social

and emotional development and All round development. Many of these children will also have additional needs such as learning difficulties, epilepsy, physical disabilities and medical needs but their complex needs mean that it may be difficult to ascertain their intellectual abilities. Low incidence group of learners require specialized teaching strategies. (Killoran, 2007)

Children with multi-sensory impairment have much greater difficulties in accessing the curriculum and the environment compared to single sensory impairment. They have difficulties in perception, communication and Incidental learning is limited. These children need teaching approaches which make good use of their residual hearing and vision, together with their other senses. They may need alternate means of communication. McLetchie&Mac Farland, 1995 found that only 6% of teachers who work with children with multiple impairments have specialized training. Children with MSI may have physical and hearing impairments, learning difficulties and speech and language difficulties. These children's perception of the world differs greatly from that of the adults who educate them, and significant barriers exist regarding their learning, requiring specialized interventions (Douglas &McLinden, 2005). To reduce this loss, it is important to develop appropriate communication methods in the life of children with MSI. Many children with severe or multiple disabilities, including those with visual impairment are limited in their ability to communicate.

There are many approaches and strategies are often recommended for the children with MSI. Many students with vision and hearing loss need a variety of communication systems for their different needs and settings. (Nikam, M. 2005). Communication develops through social process which begins with parent's or care-givers interpretation and reinforce of the baby's signals and responses throughout daily interaction. Many children with Severe or Multiple disabilities, including children with MSI, are limited in their ability to communicate. Communication is defined as how a person exchanges information about his or her desires, needs, knowledge, and perceptions with another person. (Beukelman & Mirenda, 2005). Communication can be summed up as our attempts to obtain information from and impose order upon the world around us. (McInnes, J.M and Treffry J.A 1997). Communication can be verbal, written, or non verbal such as gestures or symbols. Young children typically communicate through gestures and vocalizations and then learn to speak within the first year of life. (Rowland & Schweigert, 2000). All these children can acquire varying degrees of communication skills. The earlier the intervention start it is easy for the child to learn not only in

communication skills but also in other areas too as communication provides the basis for all learning.(Sinha,S.2005)

Augmentative and Alternate Communication (AAC) is the term used to describe methods of communication which can be used to add to the more usual methods of communication including speech and writing when impaired. Aiding communication with a device or designing an entire system with which a person can compensate and communicative is referred to as AAC. (Beukelman&Mirenda, 1992). AAC includes unaided systems such as signing and gesture, as well as aided techniques ranging from picture charts to the most sophisticated computer technology.

Total communication is used to help children who have special needs, such as those who suffer from sensory impairments, autism or other profound and severe disabilities which hinder optimal communication. Children who suffer brain injury at birth or childhood may have long-lasting communication difficulties, also benefit by total communication.( Carr, 1979)Total Communication uses both seeing and hearing to enable communication in children with special needs. It uses a multi-pronged approach to achieve its goal. In order to communicate with others, the child is taught sign language, encouraged to talk and get across her message with appropriate gestures and body language. Total Communication (TC) is an educational philosophy. "Total Communication can best be defined as eclectic, borrowing techniques form a variety of different methods." Ideally teachers can use sign, writing, mime, speech, pictures or any other communication method that works. The method of communication should depend upon the needs of the student and the situation. In actual practice, most Total Communication programs use some form of Simultaneous Communication. Children are encouraged to work on speech and listening skills.

All children are encouraged to develop skill in all areas (sign language, speech and audition), although children are allowed to develop a mode of communication that is best for them.

Total communication (TC), a term coined by Roy Holcomb in 1967, is the title of a philosophy of communication, not a method (Scouten, 1984). Total communication may involve one or several modes of communication (manual, oral, auditory, and written), depending on the particular needs of the child. The original expectation of TC was for teachers to use the communication method(s) most appropriate for a particular child at a particular stage of development. Therefore, there would be situations when spoken communication might be appropriate, other situations where

signing might be appropriate, others that would call for written communication, and still others where simultaneous communication might work best (Solit, Taylor & Bednarczyk, 1992). Total communication seemed to be the bridge that allowed a crossover from an oral-only philosophy to a philosophy that embraced sign language.

Modes of communication using in the Total Communication Approach are Sign Language, Hands on Signing/ Tactile Sign Language, Finger Spelling, Print on palm, Speech, Lip reading/ Speech reading, Objects of Reference, Gestures, Tadoma, Braille, Symbols and Cues.

A study compared 147 children in either oral or total communication programmes who used cochlear implants. The study compared the children's expressive and receptive language, spoken or signed. The results showed that the total communication students performed better on some measures. Both the oral and total communication students were able to understand when they were spoken to however in those children that received their cochlear implants before they were 5 years old, the total communication students could understand better when spoken to than the oral communication students. In addition the total communication students had better scores on expressive language. It provides a safety net for children who have difficulty following oral methods. Tincani (2004) measured increases in vocal responding by comparing the effects of PECS training and TC (Sign plus Vocal) training on the development of vocal manding. He found that both systems produced an increase in vocalizations but TC training led to more vocal responding than PECS.

There has been little research on how children with MSI perceive communication. Individualized intervention method or one to one interaction is often the first and most important adaptation that families and service providers need to make to communicate with children who are MSI (Hand in Hand P.79). Total communication approach often supplements or replaces verbal speech. It includes unaided modes of communication such as gestures, signs, facial expressions or aided modes such as drawings, Tangible symbols and Laptop computers (Johnston McDonnell, Nelson & Magnavito, 2002). Total communication (TC) the most commonly used training procedure to teach sign language to children with Sensory and other developmental disabilities, involves the simultaneous presentation both a manual sign and associated spoken word (CARR, 1979). Researchers demonstrated that this form of language training may result in superior acquisition of verbal and non verbal operants of children with Autism and other developmental disabilities (Brady & Smouse, 1978).

This study explored the effectiveness of Total communication approach among children with Multi-sensory impairments. Due to the complex nature of the disability, researcher selected the four basic signs required for their day to day life.

**Objectives:**

- ▶ To assess the communication skills of children with MSI.
- ▶ To find out the achievement scores in communication skills among children with MSI as a result of Total Communication Approach.

**Methods:****Participants and Setting:**

The study was a single subject design carried out for 25 sessions of 45 minutes duration each on 3 subjects (1 Female 2 Male) with varied sensory impairments in the age group of 4 to 8 years. Study conducted in the MSI unit of special education centre, NIEPID, Secunderabad.

**Subject 1 (Mahati):**

Mahati is a 6 year old girl with bilateral hyperopic in eyes and hemiplegic. She also has moderate mental retardation and with no speech. Her mother tongue is Telugu. She is able to communicate through facial expression, body language, babbling, gestures and basic signs.

**Subject 2 (Harish):**

Harish is an 8 year old boy with bilateral micro cornea. He has severe mental retardation with no speech. He has no vision in the right eye and has light perception in the left eye. His mother tongue is Telugu. He is able to communicate through facial expressions, body language, basic gestures, object cues and vocalizations.

**Subject 3 (Nithesh Kumar);**

Nithesh kumar is a 6 year old boy with severe mental retardation, visual impairment and autistic features. He has speech but cannot communicate meaningfully. His mother tongue is Telugu. He is able to communicate through facial expression, body language and object cues.

**Tools and Materials used:**

A total communication assessment checklist was developed by the researcher with 4 domains. They are 1. Preference for objects and symbols. 2. Preference for speech. 3. Preference for signs. 4. Preference for alternate communication modes. Through this total communication checklist researcher determined the appropriate communication mode and present communication strategies for the subjects. By using two activities the researcher taught 4 manual signs corresponding to the words. The words are Namaste, Thank you, More and Finished. A total communication approach was used to teach these words through greeting activity and bouncing over the physioball. Researcher developed a task analysis sheet of these 2 activities for the pre and post test assessment. The scoring procedure of the checklist was independent (5), cues (4), Verbal instruction with signs (3), Hand under hand (2), Hand over hand (1), Refused (0). The highest score that a subject could get was 45. Face validity of the checklist was established by distributing the checklist to 15 professionals in the field of special education. For greeting activity a bell was used as an object of reference. A sponge ball was used as the object of reference for bouncing activity.

**Statistical analysis:**

A multiple baseline research design was used for the assessment. Graphical representation narrates the achievements of 3 students on the manual signs with the corresponding spoken word.

**Intervention:**

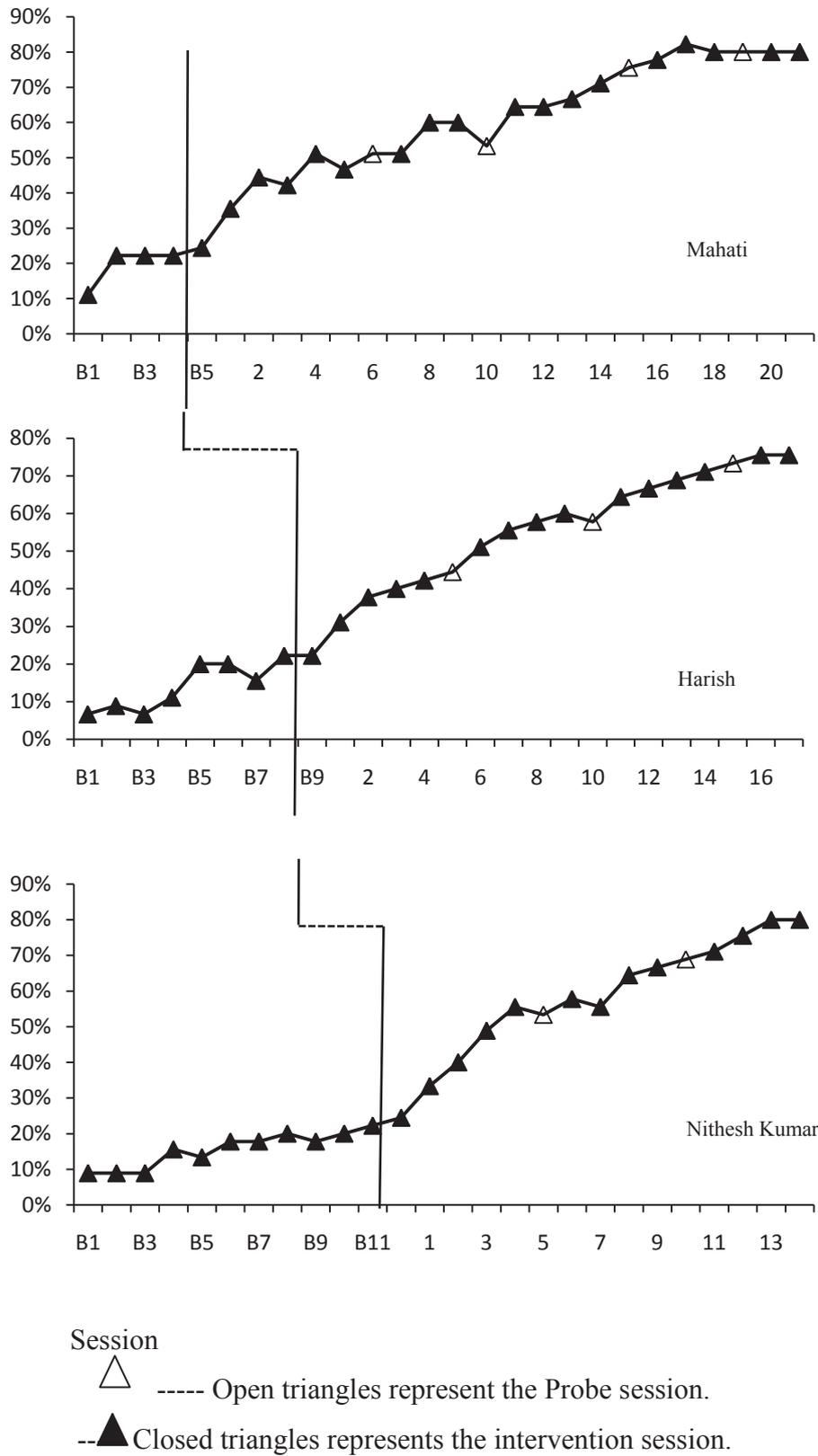
While working with 3 children during the session's researcher wore a watch as an object of reference to distinguish herself from the caregivers/ Teachers who usually work with them. This was presented each time when the researcher approached them. Before the activity each participant were presented with two object of reference, one for the activity and one for the researcher.

A total communication approach was used with the participants, therefore objects of reference are not the only method of communication used but also sign supported English. This means that a sign is used with the spoken word to reinforce meaning. The major 4 signs used with the participants were, MORE, FINISH, NAMASTE and THANKYOU.

**Results:**

There was significant improvement in the communication skills from the baseline assessment to post test assessment. All the three children achieved the communication skills taught by the researcher. (See figure 1&2) Throughout the study the researcher had given social reinforcement to elicit the correct response. For each activity the researcher paused 3 seconds to anticipate a correct vocal and sign response from students. In most of the experimental design the criterion for mastery is 100%, whereas here the researcher had the mastery set to 75% as the children dealt are with multiple sensory impairments along with moderate to severe cognitive delays.

Figure 1: Total Communication: More/Finished



The above graphical representation shows the achievement of words MORE & FINISHED. Activity such as “Bouncing over the Physioball” was used to achieve the skill. Researcher started intervention with Mahati, who took 5 baseline and 20 sessions to achieve the level of mastery criteria.

Once Mahati was on the Physioball, the bouncing may be stopped after a countdown of 5 and Mahati was encouraged to sign MORE or FINISH. The activity would then continue again for a short time or would stop. The sequence would be repeated several times for each activity and researcher encouraged the signing each time when the activity stopped.

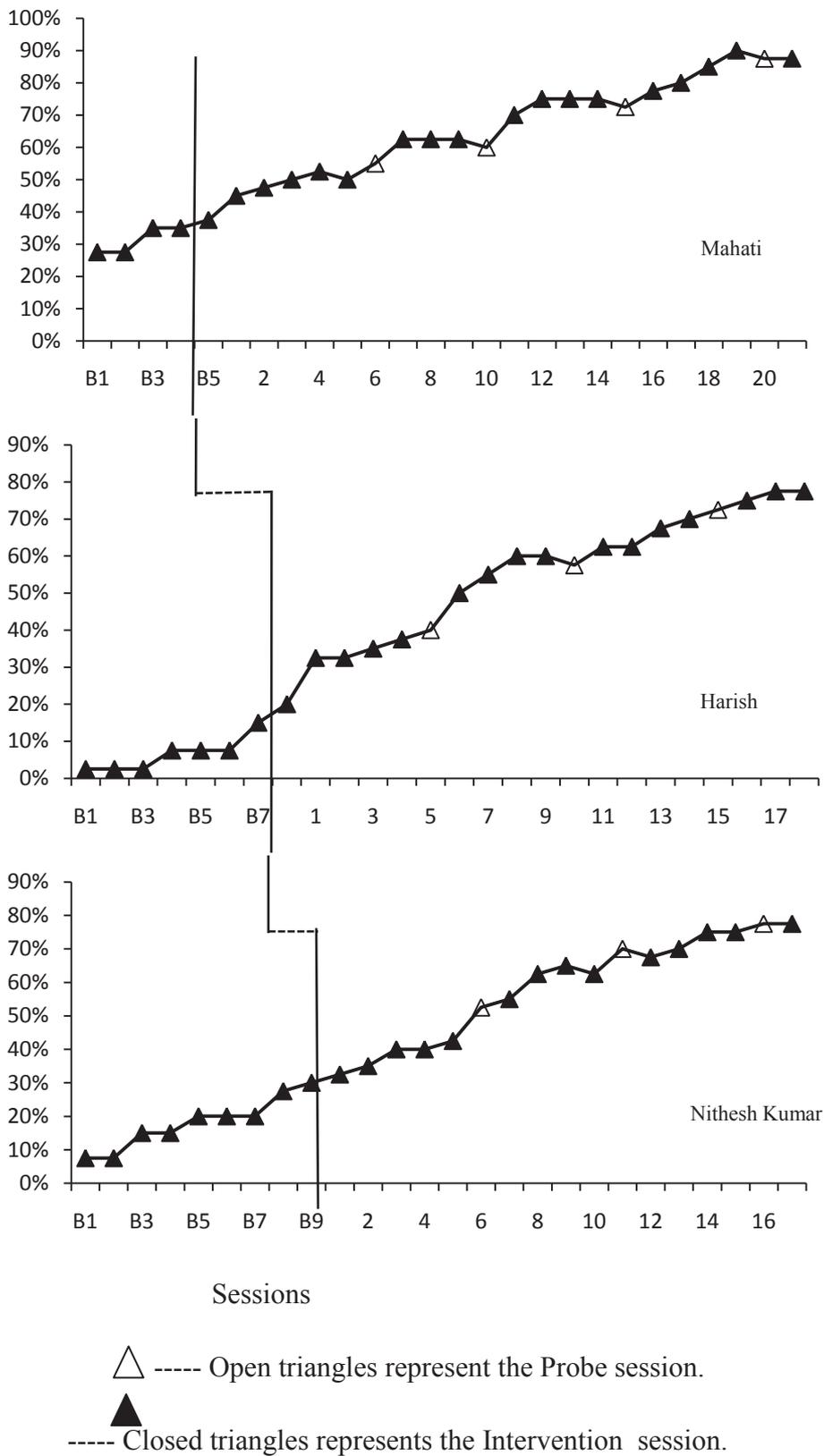
On the baseline assessment researcher did not give any kind of prompts till the time Mahati showed improvement the baseline assessment continued for Nithesh and Harish. However the baseline assessment continued to Nithesh till the time Harish showed the improvement. Harish took 9 baselines and then started the intervention however Nithesh took 12 baselines to start the intervention. We could see a steady and gradual improvement in Mahati in learning MORE and FINISHED words. On completion of 15 she achieved the level of mastery 76% of accuracy and on post test assessment she achieved 80% of accuracy. On 10<sup>th</sup> session we call see a fall in the graph, because the researcher did not give any kinds of prompts to communicate these words. Along with sign she has started vocalizing the word for FINISHED (in Telugu).

Harish learnt all words on the post test assessment with 76% of accuracy. Nithesh achieved the communication skills with 80% of accuracy in the post test assessment.

### Analysis of More/Finished

Name of the Subjects	Baselines	% of accuracy on Posttest Assessment
Mahati	5	80%
Harish	9	76%
Nitesh Kumar	12	80%

Figure 2: Total Communication: Namaste/ Thank you



The above graphical representation (Figure 2) showed the achievement of words NAMASTE & THANKYOU through greeting activity. Researcher started the activity with sign NAMASTE along with speech. A bell was used as an object symbol for greeting activity.

The use of a tangible cue with a student of multiple disabilities and visual impairment can provide a communication system to express his or her wants or needs (Trief 2007).

Mahati took 5 baseline assessments and 20 sessions to achieve the NAMASTE and THANKYOU signs. We could see a gradual improvement in the graph of Mahati. She achieved the level of mastery in the 16<sup>th</sup> session with 78% accuracy and on post test assessment the score 88% of accuracy. She is able to sign not only with the researcher, but also with other teachers and staff. Harish took 7 baselines and achieved the level of mastery on the post test assessment with 78% of accuracy. Nitesh took 9 baselines and achieved the level of mastery on the post test assessment with 78% of accuracy. He started using these words meaningfully.

All three subjects under the study achieved desired sign and vocalization. Subsequent research confirms that children with developmental disabilities could not only be taught to manual sign language but also the manual sign acquisition could support the development of various verbal and non verbal operants (Carr. et.al 1978).

Several studies have suggested that total communication training may be most effective for developing and increasing vocal responses by children who already demonstrate some degree of vocal imitation or echolalia (Schaeffer. et.al.1977).

#### **Analysis of Namaste/Thank You:**

Name of the Subjects	Baselines	% of accuracy on Posttest Assessment
Mahati	5	88%
Harish	7	78%
Nitesh Kumar	9	78%

### **Limitations**

The study had number of limitations. Firstly, the sample sizes were very small. The study is limited by the fact that the findings of three participants are reported here. Study has conducted for a short duration. If the researcher conducted the study for more days' students may achieve the skill with 100% of accuracy.

### **Recommendations for Future Research**

Replication of the intervention used in this study should be conducted with a larger, diverse sample to support the conclusions and to examine its use with other populations. Longer duration of the study would have facilitated more functional communication skills. Future research is needed to examine the lasting impact of the intervention on student performance. Parents training also play a crucial part on any intervention programmes. They have to carry out the skills to home for the personal independence of the child. The Total Communication Strategy can include into the special education curriculum as a comprehensive training package. This package provides a foundation of communication skills to people with special needs having problems in Communication.

### **Conclusion**

The educational needs of a child with MSI are unique. However, if his unique learning style is not addressed, the child with MSI is at risk for being excluded from the classroom, the family and the community. So they should be taught as many methods of communication as possible. Total Communication Approach can be used as an effective strategy to facilitate communication. The positive outcomes of the study give more emphasis to the future research in this area.

### **Acknowledgement:**

I wish to thank Miss. SheilajaRao, Dr. ShilpaManogna and my family for giving me constant inspiration and guidance. I also wish to express a special thanks to my friend Ms. AishwaryaSczhian for her constant motivation and support. Lastbut not the least the participants: children with Multi-SensoryImpairments and their parents for their unending support and cooperation throughout the process of study.

**References:**

- 1) Bruce, M. & Trief, E. (2009). Development of a Universal Tangible Symbol System. *Journal of Visual Impairment & Blindness*, 100, 574-561.
- 2) Bowen, J. (2010). Visual impairment and self-esteem: What makes a difference?. *Journal of Visual Impairment & Blindness*, Abstract retrieved from JVIB database.
- 3) Carr, E.G., Binkoff, J.A., Kologinsky, E., & Eddy, M. (1978). Acquisition of sign language by autistic children. : Expressive labeling. *Journal of Applied Behavior Analysis*, 11, 489-501
- 4) Chen, D. & Downing, J. (2006). Using Tactile Strategies With Students Who Are Blind and Have Severe Disabilities. *Journal of Visual Impairment & Blindness*. Abstract retrieved from afb press
- 5) Grassmann, L. (2002). Identity and Augmentative and Alternative communication. *Journal of Special Education Technology*, 17.41-44.
- 6) Hetzroni, O. (2003). A Positive Behaviour Support: A preliminary evaluation of a school-wide plan for implementing AAC in a school for students with Intellectual Disabilities. *Journal of Intellectual and Developmental Disability*, 28.283-296.
- 7) Kashinath, S., Woods, J. & Goldstein, H. (2006, June 1). Enhancing Generalized Teaching Strategy Use In Daily Routines by Parents of Children With Autism. *Journal of Speech, Language, and Hearing Research* 49(3).

## **The Challenges Faced By Differently-Abled Tribal Children: A Study with Special Reference to Palakkad District of Kerala State**

**Sinoj Joseph**

Phd Scholar

Department of Physical Education and Health Science

Alagappa University, Karaikudi

### **Abstract**

*Unfortunately it is not a fully appreciated fact that 10 per cent of the Indian children below 14 years of age have some kind of an impairment or physical disability. Their absolute number is a staggering 30 million, which mandates a responsible and effective role of the society and its government. Differently-abled tribal children confront deprivations in several dimensions of their lives. Putting it differently, differently-abled children face grave discriminatory practises. The study attempts to analyse the challenges that differently-abled Tribal children in Palakkad district of Kerala confront. The papers analyses and scrutinises the 'generic' studies that have been conducted on Tribes in Kerala. As far as the researcher's knowledge goes, no comprehensive study has ever been undertaken on the issues faced by differently-abled tribal children belonging to Palakkad District of Kerala. The analysis also recommends a course of action which could be implemented to alleviate the sufferings of differently-abled tribal children and helps in the integration of them in to the mainstream.*

### **Introduction**

The interaction between evolution, heredity and environment has created this majestic planet which is rich in human diversity. Individuals differ from each other in their physical, intellectual, emotional and behavioural attributes. People with mental or physical conditions are differently-abled because they possess a unique set of abilities and perspectives. Everybody has ability and everybody matters, it's all about acknowledging it. Several definitions of disability have been offered. Any restriction or lack of ability to perform an activity in a manner or within the range considered normal for the human beings, resulting from impairment is termed as disability. Impairment concerns the physical aspects of health; disability is the loss of functional capacity resulting from an impairment organ;

handicap is a measure of the social and cultural consequences of an impairment or disability. The types of disability include loco-motor, hearing, speech, visual and mental disability. People with disabilities have had to battle against centuries of biased assumptions, harmful stereotypes, and irrational fears. The stigmatization of disability resulted in the social and economic marginalization of generations with disabilities, and, like many other oppressed minorities, this has left people with disabilities in a severe state of impoverishment for centuries. Disability as defined by the Act (Persons with Disability Act, 1995) covers blindness, low vision, leprosy-cured, hearing impairment, locomotor disability, mental retardation and mental illness as well as multiple disabilities. The Act does not cover disabilities like Autism, or learning disabilities.

The World Health Organization (WHO) defines disability in a rather broad sense. "Disabilities is an umbrella term, covering impairments, activity limitations, and participation restrictions. An impairment is a problem in body function or structure; an activity limitation is a difficulty encountered by an individual in executing a task or action; while a participation restriction is a problem experienced by an individual in involvement in life situations." The United States Government defines a disability as "a physical or mental impairment that substantially limits one or more of an individual's major life activities:" This includes both those individuals with a record of impairment and those regarded as having such impairment.

Palakkad district is situated in the South West Coast of India, bounded on the North by Malappuram in the East by Coimbatore of Tamilnadu, in the South by Thrissur and in the West by Thrissur and Malappuram districts. During a rural camp with students of social work I visited tribal kudy at Attapadi in Palakkad district, Kerala in the year 2000. It was my first exposure to a tribal settlement. Since then, I have had continuous interactions with Adivasi Moopans. This has helped me in comprehending the challenges tribals face, especially the issues of differently-abled tribal children in a better manner. As a priest, I had had long and detailed dialogues with Heads of NGOs which are into the upliftment of differently-abled tribal children. I was instrumental in undertaking a survey in 2016-17 intended to figure out the disadvantages differently-abled tribal children confront. In a nutshell, the researcher has had lot of grass-root level exposure to the challenges differently-abled tribal children face.

**Objectives of the Study: The study has the following objectives.**

- ❖ Sketch out the general situation differently-abled tribal children of Palakkad face.
- ❖ Identify the issues and challenges differently-abled tribal children encounter.
- ❖ Suggest remedial measures.

**Studies on tribal children kerala**

At the outset, I would like to make a confession. As far as my knowledge goes, no study on the issues differently-abled tribal children in Palakkad district has been conducted. No study mentioned below is an exposition of differently-abled tribal students. They are 'generic' studies in the sense that they are expositions of pathetic state of affairs tribal children encounter. Lakhera (1986) opines that teachers have to look into factors like low achievement of tribal children due to unfavourable attitude of parents towards education, educational backwardness, and lack of motivation. At present, no specific programs have been designed to prepare teachers for rural and tribal areas. Suggestions have been made for establishment of teacher education institutions on the pattern of ashram schools particularly for preparation of female teachers. It has been established by various surveys that dropout rate of girls is higher when there is lack of female teachers (Duggal, 1992). Dropout is also affected by the presence of young male teachers (Pandit, 1989; Ray 1989). The National Policy on Education 1986/92 emphasised the need to educate the differently-abled students along with other children in the common classroom so as to prepare the former for normal growth and enable them to face life with confidence. At present the capacity of teacher education programs to take care of the differently abled students in an integrated setting is quite limited (Gopalan, 2003).

**Issues, challenges & remedial measures**

Here are a few issues differently-abled tribal children face and some suggestions for the amelioration of their lot.

**Developing innovative teaching strategies for differently-abled children**

It has been observed that differently-abled children show greater learning when techniques like task analysis, peer teaching, cooperative learning, learning corners and multisensory approach are used. My submission is that a collaborative effort by educationists, technocrats and all the relevant

stakeholders will go a long way in igniting the 'learning spirit' in differently-abled children by instituting an out-of-the-box teaching methodology. Developing appropriate Strategies for reading skills, writing skills, mathematics, attention-deficit and hyperactive disorder should be given prime priority.

### **Education**

The community at large is often unaware of the potential of children with special needs. In the popular mind, special needs are usually identified with very low expectations. Parent should believe in the value of educating children with special needs. The higher the expectations, the higher will be their acceptance in the family. Education is the most efficacious tool by which differently-abled could achieve social and economic empowerment. Differently-abled children have been facing discrimination for a long period of time. There has been a growing realisation that without inclusion of differently-abled children in system i.e. mainstream, constitutional commitments cannot be achieved. Arya (2011) makes this point in a succinct manner when he says, " Education is an attempt of intervention in the life of challenged children to cope up with their disabilities, training to optimize their capabilities so that they can contribute to society in a more constructive and productive way. Education is a right of every child, so children with special educational needs to have similar rights and obligations, as being enjoyed by normal or able children". As per the estimate done by UNICEF, the number of children suffering from some form disability stands around 30 million. NCERT report (2003) says that India's 200 million school-aged children (6-14 years), 20 million required special needs education. A major chunk of these children remain outside the ambit of mainstream education.

In order to promote education among differently-abled tribal children the primary effort should be on eradication of poverty. The parents of the tribal children have to be provided with regular employment for earning income to meet their day-to-day requirements which will motivate them to send their children to school. Students have to be provided with boarding and lodging. Opening of more Creches/Balavadies/ Nursery schools for differently-abled in tribal areas will not only promote early childhood education but also diminish the burden on elder children in looking after the younger when the parents go for work. It is also worth considering starting residential schools tailored to meet the specific needs of differently-abled tribal children.

### **Mandatory registration**

India must introduce mandatory registration of persons with disabilities at community and school levels. It could be achieved by introducing village disability registers, school special needs registers, ward level disability registers and issue add on card to Aadhaar card /ration cards. This digitized data could be used to provide smart ID cards.

### **Social boycott**

The family members of the disabled often tend to avoid social gatherings in shame or fear that someone would enquire about their family member with disability. Differently-abled children's are not exposed to any social gathering, nor does our community recognize the need for children's participation. This issue is a glaring one and needs to be tackled on a war footing. This issue could be addressed by creating a paradigm shift in the attitude of the general public by implementing meticulously designed awareness creation programs in a long-term manner.

### **Gender bias**

Education is not considered a priority for differently-abled girls. Dropout rates for differently-abled girls are appallingly higher than for differently-abled boys. Unfortunately a girl child with disability is seen as a lifelong burden because marriage is not a pragmatic option. Hence, it is 'rationally' concluded to be economically unwise and unsound to invest in her education. There is lot of empirical evidence which suggests that legislation does not help in eradicating this menace. A robust long-term multi-pronged strategy has to be evolved which could bring in an attitudinal shift.

### **Negative attitude towards schooling**

This is not an insurmountable problem. Overcoming this negative attitude towards schooling could be overcome by an appropriate conscientization campaign. Launching a conscientization campaign at the grass-root level should be accorded prime priority in the strategy. The development of the game-plan should involve stakeholders from different walks of life.

### **Creating a quantum-shift in the attitude of teachers**

It goes without saying that teachers are the back bone of the teaching and learning process inside or outside of school premises. It is high time to usher in a modification in their attitudes, beliefs, expectations and acceptance of children with Special Needs. Putting it differently, it is all about making classrooms more inclusive.

### **Creating an inclusive curriculum**

As a researcher of tribal issues, it has come to my attention that regular teachers in tribal schools have scanty 'expertise' in handling differently-abled learners. The need of the hour is to devise an inclusive curriculum keeping in view the diversity of learners and imparting some sort of proficiency to regular teacher when it comes to handling differently-abled learners. There is no provision for Special Education as an optional or compulsory paper in B. Ed in most of the Indian universities. This loophole has to be plugged-in without much delay and this would go a long way in transforming regular tribal schools more inclusive and 'differently-abled' friendly.

### **Need of intervention at the level of elementary education**

Elementary education plays a vital and critical role in laying foundation of school going children in rural areas of state. The reason is not hard to find. Rural areas lack quality pre-schools, teachers and volunteers who could distinguish differently-abled children. Therefore, it is of prime importance to intervene at the elementary level because differently-abled children may be keyed out at an early age.

### **Integration of differently-abled children in formal schools**

The Ministry of Human Resource Development (Department of Secondary and Higher Education) has been implementing a scheme of 'Integrated Education for the Disabled Children' (IEDC) in formal schools since 1982. The main objective of the scheme is to provide educational opportunities for the disabled children in normal schools so as to facilitate their retention in the school system. The disabled children who are placed in special schools should be considered for integration into common schools once they acquire the communication and daily living skills at a functional level. It is a sad

fact that the 'integration' has not been happening. There is a multitude of reasons. It is high time to fine-tune the Formal system so that the integration and retention take place in a smooth manner.

### **Poor infrastructure**

A couple of studies have shown that the distance, coupled with bad roads and lack of transport, is one reason why tribal children do not remain in schools. Travel through forest roads for long hours is not only arduous but also hazardous. The lack of transport also forces many tribal people to send their children to live in hostels while still young. Once back home for vacations, these children are reluctant to return to school. They also face discrimination in many such hostels, adding to their reluctance.

### **Lack of information**

Some of the common and well recognized disabilities are deafness, blindness, and impairment of movement, obvious deformities and mental retardation. There are several other types of disabilities which are not that obvious from a distance. The lesser degrees of impairment should not be underestimated because of their profound effect upon learning and leading a productive life. It has been estimated that more than half of the total disabilities are preventable by timely intervention at an early stage. Identification and thorough professional assessment of the disability should be done as early as possible in order to decrease its impact upon life. Parents and school teachers have a key role in this crucial process of early identification and correct remedial action. At present there is lack of a comprehensive source of information for parents of children with disabilities. It is high time to develop online and offline 'data-banks' which are easily accessible.

### **Conclusion**

The above exposition underscores the need for a robust strategy and immaculate implementation of it to uplift the conditions of differently-abled tribal children in Palakkad district. Broadly speaking, the strategy should include measures to ensure dignified life for differently-abled tribal children. A game plan to eradicate attitudinal barriers among communities is the need of the hour. It is high time to improve infrastructure in mainstream schools to make them disabled friendly and train teachers for optimal support.

It is also very important to factor in pedagogical concerns. It must also be ensured that differently-abled children are not segregated from the mainstream. This could be accomplished by providing specialist support. The professional development of the teachers and educators is a crucial importance. Acute shortage of trained man power who can tackle the problems of differently-abled tribal children has to be addressed without any delay. Empowerment of differently-abled tribal children can be fulfilled only by a collaborative effort involving parents, NGOs, and Special Schools for providing inputs on training, curriculum delivery, assessment, etc.

### References:

- 1) WHO. International Classification of Functioning, Disability and Health (ICF) 2001. Available from: <http://www.who.int/classifications/icf/en/>
- 2) Miller-Keane Encyclopedia and Dictionary of Medicine, Nursing, and Allied Health, Seventh Edition. © 2003 by Saunders, an imprint of Elsevier, Inc.
- 3) Edgar Thurston (1909). Castes and tribes of southern India,. Madras: government press, 1909. 9% x6, 7 vols., ills.
- 4) L. K. Anantha Krishna Iyer (1909). The cochin tribes and castes, vol. I. Madras, 1909.
- 5) Kunhaman, M. (1989). Development of Tribal Economy. Classical Publishing Company, New Delhi.
- 6) Bhanu. B. Ananda (1986). Cholanaikkan of Kerala, Anthropological Survey of India, S.T, Lifestyle: Indian Tribes (Locational Practices) Kerala, Trivandruin, 1986.
- 7) Arya, R. K. (2011). A Comparative Study of Teaching Related Problems of Teachers Teaching in Special School. Unpublished Dissertation of M. Ed., Varanasi: Faculty of Education (K) BHU.
- 8) UNICEF. (2003). Examples of Inclusive Education India. United Nations Children's Fund Regional office for South Asia.
- 9) NCERT. (2006). "Position Paper National Focus Group on Educational of Children with Special Needs. "New Delhi: NCERT
- 10) Rao, I. (2003). Inclusive Education in the Indian Context." NCERT, 16-17 September 2003, New Delhi

## Disability and Women in Society

**K.Vaishnavi**

Phd (Part Time)-Research Scholar, Madurai Kamaraj University

&

**Dr. Meena Kumari**

Research Guide -Head And Assistant Professor, Department Of Sociology, Fatima College

### Abstract

*The problems of the disabled persons are multi dimensional and ever increasing, issues more often faced by women with disabilities than by men are forced marriage, domestic violence, and other types of physical, emotional, and sexual abuse, and issues concerning pregnancy, labour, delivery, and childrearing. Unfortunately, many women with disabilities encounter attitudinal, informational, environmental, and geographic barriers as they seek access care & needs. Disability affects both men and women, but it is more prevalent among women, due to their longer life span and greater risk for secondary problems, such as osteoporosis and some mental health problems. It has been realized that a majority of persons with disabilities can lead a better quality of life if they have equal opportunities and effective access to rehabilitation measures. The present study focuses in understanding the challenges of disabled women and coping strategies that can be used to overcome the challenges.*

### Introduction

Physical and Mental impairment which creates functional limitation and this condition is known as disability or condition of disability. The condition of disability pulls individual who is affected to dwell with struggles for rest of their whole life and makes them vulnerable in most of the situation. Majority of people who suffer under disabled condition are from minority group and most affected among those group are women with disability because they are bound to face double discrimination of both the factor such as Gender and Disability. Women with Disability are subjected to neglect, segregation, isolation, deprivations and pity. This postulate has remained from so many years that women with disability have no or lesser physical, biological and psychological needs as compared to other women. Threats as per convenience by people around and with same nonchalance dumped out.

Disability is cause of various factors and the predominant ones are genetic disorder, congenital disturbances, injury, environmental or occupational accidents, disease, natural and made catastrophes which are hardly understood by the society, lack of awareness on disability and tailored made efforts from all the levels make the condition even worst. Women suffer from restrictions, oppressions and discrimination due to their existence in patriarchal societies. Moreover, the psychological and social challenges are more pervasive on women with disabilities. The women often face attitudinal and environmental barriers that prevent their full, equal and active participation in a society.

### **Disability and Discriminations**

Disability covers a great variety of situations. The global disability situation also reveals significant inequalities, as people with disabilities are not a homogeneous group. Poor people, women, and old people are more likely to experience disability than others. While disability correlates with disadvantage, not all people with disabilities are equally disadvantaged. Women with disabilities experience gender discrimination as well as disabling barriers. School enrolment rates also differ among impairments: children with physical impairments generally fare better than those with intellectual or sensory impairments. Those most excluded from the labour market are often those with mental health difficulties or intellectual impairments. People with more severe impairments often experience greater disadvantage (World Health Organization and World Bank, 2011). Disability disproportionately affects vulnerable populations, in particular, women, older people and people that are poor. Low-income countries have a higher prevalence of disability than high-income countries.

Despite the constant increase in their number, persons with disabilities tend to be unseen, unheard and uncared and are therefore among the most marginalized in society. Persons with disabilities and households with disabilities experience worse social and economic outcomes compared with persons without disabilities. Women with disabilities have poorer health outcomes, lower education achievements, less economic participation and higher rates of poverty than people without disabilities. Besides, the women with disabilities are subject to multiple deprivations with limited access to basic services, including education, employment, rehabilitation facilities etc. Widespread social stigma plays a major role in hindering their normal social and economic life. To work towards an inclusive, barrier free society through raising awareness and policy actions, there is a need to have comprehensive reliable statistics on people with disability and their socio-economic conditions. As mentioned earlier, the women with disabilities face widespread barriers in accessing services, such as those for health care (including rehabilitation), education, transport and employment. These barriers

include inadequate policies and standards, negative attitudes, lack of service provision, inadequate funding, lack of accessibility, inappropriate technologies and formats for information and communication, and lack of participation in decisions that directly affect their lives.

### **Disability and Gender**

The disabled persons experience the lack of opportunities in all aspects of life, including access to essential services and majority of them are poor. The problems of the disabled women are multi dimensional and ever increasing. While many issues faced by persons with disabilities apply equally to men and women, however, some issues are gender specific. Among the special issues more often faced by women with disabilities than by men are forced marriage, domestic violence, and other types of physical, emotional, and sexual abuse, and issues concerning pregnancy, labour, delivery, and childrearing. In addition, women with disabilities experience a variety of unique health needs from adolescence to older age. Unfortunately, many women with disabilities encounter attitudinal, informational, environmental, and geographic barriers as they seek access to health care needs. Moreover, disabled women do not get the appropriate information and treatment regarding reproductive health care. Disability affects both men and women, but it is more prevalent among women, due to their longer life span and greater risk for secondary problems, such as osteoporosis and some mental health problems. Due to health disparities and the barriers to proper health care, women with disabilities are more likely to experience and die of secondary complications or chronic diseases, more likely to have cancer and to receive diagnosis at late stage, less likely to receive regular preventative screenings, more likely to experience mental health or substance use problems, and/or more likely to have increased healthcare cost. Women with disabilities encounter a range of barriers when they attempt to access health care. Prohibitive costs: Affordability of health services and transportation are two main reasons why women with disabilities do not receive needed health care in low-income countries - 32-33 percent of non-disabled people are unable to afford health care compared to 51-53 percent of people with disabilities. Limited availability of services: Similarly, the lack of appropriate services for people with disabilities is a significant barrier to health care. For example, research in Uttar Pradesh and Tamil Nadu states of India found that after the cost, the lack of services in the area was the second most significant barrier to using health facilities. Physical barriers: Uneven access to buildings (hospitals, health centres), inaccessible medical equipment, poor signage, narrow doorways, internal steps, inadequate bathroom facilities, and inaccessible parking

areas create barriers to health care facilities. For example, women with mobility difficulties are often unable to access breast and cervical cancer screening because examination tables are not height-adjustable and mammography equipment only accommodates women who are able to stand. Inadequate skills and knowledge of health workers: People with disabilities are more than twice as likely to report finding that health-care providers' skills are inadequate to meet their needs. They are three times more likely to report being denied the health care they need and four times more likely to report being treated badly.

### **Challenges faced by differently abled Women**

In India, low literacy, few jobs and widespread social stigma are making disabled people among the most excluded population in the country. Women and girls with disabilities are less likely to be in school, disabled adults are more likely to be unemployed, and families with a disabled member are often worse off than average. With better education and more access to jobs, people with disabilities can become an integral part of society, as well as help generate higher economic growth that will benefit the country as a whole. By and large, people with disability are further disabled through unequal treatment and denial of basic rights by the broader society. The voiceless disabled people are inseparable part of India's growing population of marginal, weaker and vulnerable sections of society. The roles and responsibilities of the Government of India are clearly identified in laws but there is a need to study the gap between the law and the practice.

Negative attitudes held by the families of the disabled, and often the disabled themselves, deter disabled persons from taking an active part in the family, community or workforce. Those suffering from mental illness or mental retardation face the worst stigma and are subject to severe social exclusion. People with disabilities are considered ineligible to marry those without disabilities unless "adjusted" by high dowry. Disabled girls are usually married to older men, leading to a higher incidence of widowhood. Showcasing success stories of people with disabilities can challenge these deep rooted negative perceptions.

A large number of disabilities in India are preventable, including those arising from medical issues during birth, maternal conditions, malnutrition, as well as accidents and injuries. However, the health sector is yet to react more proactively to disability, especially in the rural areas. There is stark

regional disparity. In general, states that lag in health services also lag in caring for the disabled. Despite years of public intervention, only a few disabled people have access to aids and appliances.

**Intervention Strategies:** comprehensive primary health care should include primitive, preventive, curative, and rehabilitative care. There are three approaches to rehabilitation, namely institution based, outreach based, and community based. The major objective of Community Based Rehabilitation (CBR) is to ensure that people with disabilities are able to maximize their physical and mental abilities, have access to regular services and opportunities, and achieve full integration within their communities. CBR is a comprehensive approach at primary health care level used for situations where resources for rehabilitation are available in the community. In addition to transfer of knowledge related to skill development in various types of rehabilitation methods, community also will be involved in planning, decision making, and evaluation of the program with multi-sectoral coordination. Besides, referral system will be there for those disabled who cannot be managed at community level and referred to district, provincial, and national levels. This will require coordinated efforts by ministries, local, district and provincial authorities, and nongovernmental organizations in the different sectors involved in rehabilitation. For the majority of the disabled interventions can be done effectively at the community level by local supervisors/school teachers.

### Conclusion

Physical rehabilitation, which includes early detection and intervention, counseling and medical interventions and provision of aids and appliances. It also includes the development of rehabilitation professionals, Educational rehabilitation which includes vocational training and, Economic rehabilitation, for a dignified life in society. Psychosocial intervention increases the quality of life and reduces the disability severity. The coordination of all the strategies will be great hand in the overall well being and growth.

### Reference

- 1) Barnes C. (1991). Disabled people in Britain and discrimination, London, Hurst.
- 2) Greenwood NW and Wikinson J. (2013). Sexual and reproductive health care for women with intellectual disabilities: A Primarycare perspective, Int J Family Med., Epub.

- 3) Harison Kelsey A. (1990). The Political challenge of maternal mortality in the Third World. Maternal Mortality and Morbidity – A call to Women for Action, Special Issues.
- 4) Klasing I. (2007). Disability and social exclusion in rural India. Jaipur: Rawat Publications.
- 5) WHO. (2001). The International Classification of Functioning, Disability and Health. Geneva: World Health Organization, Switzerland.

## A Study on Parenting Stress of Parents of Person's with Cerebral Palsy

**Dr.D.Nirmala**

Assistant Professor , Dept. of Social Work, Bharathidasan University, Trichy

&

**Dr.R.Sridhar**

Adjunct Faculty, Dept. Of Social Work, Alagappa University, Karaikudi)

### Abstract

*Cerebral Palsy is a neurological disorder. It is characterized by disturbances in muscle coordination or control. It is non-progressive and becomes apparent at birth itself. It continues throughout the life of an individual.*

*[http://en.wikipedia.org/wiki/Psychological identity](http://en.wikipedia.org/wiki/Psychological_identity)The main objective of the study is to know the level of parenting stress experienced by the parents of persons with cerebral palsy. By adopting census method data was collected from the respondents at a school for special children in Tiruchirappalli. Descriptive research design was adopted. The first part of the tool for data collection consisted of personal data and the second part measured the parenting stress. Based on the major findings suitable suggestions were made to reduce parenting stress.*

**Key words:** parenting stress, Cerebral Palsy, neurological, non-progressive disorder.

### Introduction

Parenting a person with Cerebral Palsy requires more patience and tolerance. Parenting stress can be defined as excess anxiety and tension, specifically related to the parenting role and to parent-child interactions (Hidangmayum and Khadi 2012).

Cerebral Palsy is a group of disorders of the development of movement and posture, causing activity limitation, which is attributed to non-progressive disturbances that occur during fetal or brain development. The motor disorders of Cerebral Palsy are often accompanied by disturbances in sensation, cognition, communication, perception, and/or behaviour, and/or by a seizure disorder (Bax, et. al. 2005). With a global population of close to seven billion, estimates imply that there are about one billion people with a disability in the world today. As populations worldwide are living longer, and as chronic diseases such as cancer and diabetes are increasing, even in the developing

world, the prevalence of disability will also continue to rise (WHO, 2011). Children and adolescents constitute 200 million of those with disabilities, and about 80 per cent of these live in the developing world and experience physical, sensory, intellectual or mental disabilities (United Nations, 2006). In addition, 93 million children, in the age group of 0-14 throughout the world, have moderate to severe disabilities (WHO, 2011), (Wilson, 2011). Across the states, it is interesting to note that the percentage of disabled population (in total state's population) is much higher in the states like Jammu & Kashmir, Maharashtra, Odisha and Andhra Pradesh (2.51% and above), whereas such percentages are very low in Assam and Tamil Nadu (1.64% and below). Such percentage is somewhat higher among those living in rural areas (Audinarayana. 2014)

### Review of literature

**Pisula (2007)** found that parental concerns about their child's future, the child's ability to function independently, and the permanent state of the disability may attribute to higher levels of parental stress.

**Cavkaytar, SemaBatu, and Cetin (2008)** the study was conducted with 39 mothers of children who were enrolled in a university unit for children with developmental disabilities in Turkey. The aim of the study was to examine the perspectives of Turkish mothers on their child with developmental disabilities. Most of the mothers had depression and stress since the day when they knew about the disability; parenting a child with disability can produce high level of stress and sense of imbalance in the family system.

**Glenn, Cunningham, Poole, Reeves and Weindling (2008)** examined factors predicting parenting stress in mothers (n=80) of very young CWCP. They identified relatively limited research focused on families with cerebral palsy, and that most past studies reported overall higher than average parenting stress levels. Using the Parenting Stress Index and Scales for measuring family needs, support, adaptability, and coping, the majority of the mothers were stressed. The participants with children who were rated as more demanding and less adaptable were found to have higher stress levels. Additional high stress factors for the mother's included feelings of isolation and poor spousal support.

**Ramita (2013)** aimed to study the burden and stress in caregivers of CWCP and to study the association between various factors of stress and burden among caregivers. The study was

conducted with 65 primary caregivers of children with cerebral palsy. Depression, Anxiety and Stress (DAS) scale and Family burden scale were used to collect data. Results highlighted that caregivers of children with Cerebral Palsy experienced high level of burden and stress. Mothers experienced more stress than compared to fathers; those who experienced long duration of care giving, experienced high level of burden and stress. Caregivers having children with associated disabilities like speech disturbances, seizures or mental retardation were found to have affected more on burden and stress.

### **Materials and methods**

The objective of the study is to know the socio demographic characteristics of the parents of the persons with cerebral palsy and to study the level of parenting stress of parents of persons with cerebral palsy. Descriptive research design was used. The researcher used census method to collect data from the parents of the persons with cerebral palsy. The data was collected from a school for special children at Tiruchirappalli. The researcher used interview schedule. The first part of the schedule consisted of the personal data and the second part measured the parenting stress by adopting parenting stress index developed by Abidin (1985). The following hypotheses were formulated. a) There is a significant correlation between age and parenting stress of the respondents. b) There is a significant difference between the localities and parenting stress of parents of persons with cerebral palsy c) There is a significant difference between gender and parenting stress d) There is a significant difference among the functional level of the persons with cerebral palsy and the parenting stress of the respondents. To analyze the hypotheses statistical tests like chi-square test, t-test and F- test was applied.

### **Results and discussion:**

#### **Socio demographic characteristics of the respondents:**

More than one-third (37.4%) of the respondents belonged to the age group of 21 to 30 years. Another more than one-third (37.4%) of the respondents belonged to the age group of 31 to 40 years. One-fifth (20.7%) of the respondents belonged to the age group of 41 to 50 years and a very meager percentage (4.4%) were 51 years and above.

Vast majority (88.7%) of the respondents were females. They were the mothers of persons with cerebral palsy. One-tenth of the respondents (11.3%) were males. They were the fathers of the PWCP. Majority (80.3%) of the respondents followed Hindu religion. One-tenth (10.3%) followed Islam religion and very few (9.4%) of the respondents were followers of Christian religion.

More than half (53.7%) of the respondents were educated up to high school. Less than one-fifth (18.2%) of the respondents were illiterates. More than one-tenth (13.3%) of the respondents had completed higher secondary education and another more than one-tenth (12.3%) of the respondents were graduates and a very meager percentage (2.5%) had studied Diploma/ITI.

More than half (57.1%) of the respondents were from rural area and remaining less than half (42.9%) of them were residing in urban area.

Half (50.7%) of the respondents had five or more than five members in their family. Less than half (49.3%) of the respondents had 2 to 4 members in their family.

Majority (64%) of the respondents' type of marriage was non-consanguineous. Remaining more than one-third of the respondents (36%) type of marriage was consanguineous. Majority 65.5% of the respondents belonged to nuclear family and more than one-third (34.5%) of the respondents belonged to joint family.

Less than half (48.3%) of respondent's spouse had studied up to high school. Nearly one-fifth (19.2%) of the respondents' spouse had completed their graduation. Less than one-fifth (16.3%) of the respondents were illiterates. A low percent (10.8%) of the respondents studied higher secondary. A meager percentage (5.4%) had studied Diploma / ITI. Less than half (41.4%) of the respondents' family income was Rs. 5000/- per month.

More than one-third (34.5%) of the respondents' family income was between Rs. 5001-10000/-. One-tenth (10.8%) of the respondents family income was between Rs. 10001-15000/-per month. A meager percentage (5.9%) of the respondents' monthly income was between Rs. 15001-20000/- per month. A very least percentage (3%) of the respondents' family income was between Rs. 20001-25000/- per month and a very low percentage (4.4%) of the respondents' family income was above Rs.25, 001/- per month.

### **Level of Parenting Stress of the respondents**

Majority (59.1%) of the respondents experienced high level of parenting stress and less than half of the respondents (40.9%) experienced low level of parenting stress.

### **Karl Pearson's co-efficient of correlation between the respondents' age and various dimensions of parenting stress**

There is a significant relationship between the age and parenting stress at 1% level of significance. The correlation values depict that there is a negative correlation between age and parenting stress of the respondents. Hence it can be inferred that there is a significant correlation between age and parenting stress of the respondents.

### **'Z' test between the respondents' locality and various dimensions of parenting stress of the respondents**

Z-test applied to examine the difference between the locality of the respondents and their parenting stress. There is a significant difference between the locality and parenting stress of parents of persons with cerebral palsy since the calculated values (2.780), (2.590), (2.659) pertaining to the dimensions of parent-child dysfunctional interaction, difficult child and overall parenting stress were higher than the table value at 5% level of significance. There is no significant difference between parental distress and locality since the calculated value (1.936) is less than the table value at 5% level of significance.

### **'z' test between the respondents' gender and various dimensions of parenting stress of the respondents**

z-test was applied to explore the difference between gender of the respondents and their parenting stress. There is a significant difference between gender and parenting stress since the calculated values (4.633), (5.824), (5.951), (6.055) pertaining to parental distress, parent child dysfunctional interaction, difficult child and overall parenting stress were higher than the table value at 1% level of significance.

### **One way analysis of variance among functional level of person with cerebral palsy with regard to various dimensions of parenting stress of the respondents**

One way ANOVA test was applied to examine the difference among the functional level of the persons with cerebral palsy and the parenting stress of the respondents. There is a significant difference among the functional level of the persons with cerebral palsy and the parenting stress of the respondents, since the calculated values (4.263), (4.773), (2.686), (4.583) pertaining to parental distress, parent-child dysfunctional interaction, difficult child and overall parenting stress were greater than the table value at 5% level of significance. Based on the mean score, it is evident that respondents who came under Gross Motor Functional Classification System IV and V experience more parenting stress. Result of this study coincides with the findings of **Prakash.V. et al (2016)**. In the study, the author found that, the mothers of children and youth in GMFCS levels IV and V reported high levels of caregiver stress compared to mothers of children and youth who covers under GMFCS level I and II.

#### **Suggestions/ social work intervention**

- Professional training to the parents on taking care of PWCP helps to reduce their psychological problems and increases the coping skills positively.
- Psycho-social rehabilitation and family counselling for the family members may boost up the management of the person with cerebral palsy Joshi, Srikrishna, and Mohapatra.(2015)
- Community-Based Rehabilitation may be added to the rural people with disabilities, where transportation and communication are inadequate.
- Community-Based Rehabilitation may be added to the rural people with disabilities, where transportation and communication are inadequate.
- Short term goals may be developed for the improvement of the PWCP. By achieving these goals, parents may feel happy and mentally strong and work for further development of the PWCP.
- Practicing behaviour modification therapy for PWCP is one way to reduce the parenting stress.
- Mobile rehabilitation team may be established by the Government to provide services for those who reside in remote areas, where public transportation is not available.

## Conclusion

Cerebral palsy is a physical disability that affects mobility of a person and physical structure. Mostly, brain injury leading to cerebral palsy occurs during pregnancy. Cerebral Palsy cannot be identifiable for first 12 months, if it is mild. The level of depression is four times higher in people with disabilities, such as Cerebral Palsy. Among the large variety of childhood developmental disabilities, Cerebral Palsy is considered to be a major physical disability, which impacts the development of a person (Jones, et al., 2007). Raising a child with Cerebral Palsy may have serious consequences not only for the emotional well-being of a parent, but also for the opportunity of families as a whole, to perform everyday activities (Rentinck, 2009). Children diagnosed with a developmental disability require continuous assistance for most of the day-to-day activities. This places a high care-giving burden on the family, the stress of which can be aggravated by concomitant behavioural problems and low developmental competence (Gupta, 2007). So management of parenting stress helps to lead a healthy life.

## References

- 1) Abidin, R. (1995). Parenting Stress Index Professional Manual. Third Edition. Psychological Assessment Resources. Inc
- 2) Audinarayana, N. (2014). Disabled population in India: A glimpse into 2011 census data. Progressive Outlook, IV(1A) 27-37.
- 3) Bax, M., et al (2005). Proposed definition and classification of cerebral palsy. April 2005. Developmental Medicine and Child Neurology. 47(8). 571-576. Retrieved from DOI:10.1017/S001216220500112X on 14<sup>th</sup> November 2015.
- 4) Glenn, S., Cunningham, C., Poole, H., Reeves, D., & Weindling, M. (2008). Maternal parenting stress and its correlates in families with young children with cerebral palsy. Child: Care. Health and Development. 35(1). 71-78. Retrieved from: <http://www.wiley.com/bw/journal.asp?ref=0305-1862> on December 15<sup>th</sup> 2015.

- 5) Gupta, V.B. (2007). Comparison of parenting stress in different developmental disabilities. *Journal of Developmental and Physical Disabilities*. 19. 417-425. Retrieved from doi:10.1007/s10882-007-9060-x on December 20<sup>th</sup> 2015.
- 6) Hidangmayum, N., & Khadi, P.B. (2012). Parenting stress of normal and mentally challenged children. *Karnataka Journal of Agricultural Science*. 25(2). 256-259.
- 7) Jones, M. W., Morgan. E., Shelton. J. E., & Thorogood. C. (2007). Cerebral palsy: Introduction and diagnosis. *Journal of Pediatric Health Care*. 21(3). 146-152. Retrieved from doi:10.1016/j.pedhc.2006.07.003 on October 14<sup>th</sup> 2015.
- 8) Joshi, SR., Srikrishna, G., & Mohapatra. B., (2015). Parents' expectations from rehabilitation services for their children with cerebral palsy: A retrospective study. *Indian J CerebPalsy*; 1:121-6. Retrieved from DOI: 10.4103/2395-4264.173458 on February 5<sup>th</sup> 2016.
- 9) Pisula, E., (2007). A comparative study of stress profiles in mothers of children with autism and those of children with Down's syndrome. *Journal of Applied Research in Intellectual Disabilities*. 20. 274-278. Retrieved from doi: 10.1111/j.1468-3148.2006.00342 on December 5<sup>th</sup> 2015.
- 10) Prakash, V., Patel, AM., Hariohm, K., & Palisano, RJ. (2016). Higher Levels of Caregiver Strain Perceived by Indian Mothers of Children and Young Adults with Cerebral Palsy Who have Limited Self-Mobility. *Physical and Occupational Therapy in paediatrics*. 16.1-10.
- 11) Ramita, S., (2013). Burden and stress in caregivers of children with cerebral palsy. *Indian Journal of PMR*. 24. Retrieved from <http://www.ijpmr.com> on December 2<sup>nd</sup> 2015.
- 12) Rentinck, I. (2009). Parental adaptation in families of young children with cerebral palsy. *Labor Grafimedia BV. Utrecht*. ISBN 978-90-393-5180-2.
- 13) United Nations, (2006). Some facts about persons with disabilities. Retrieved from <http://www.un.org/disabilities/convention/pdfs/factsheet.pdf> on September 15<sup>th</sup> 2015.
- 14) WHO (2011) World report on disability. Retrieved from [http://www.who.int/disabilities/world\\_report/2011/en/](http://www.who.int/disabilities/world_report/2011/en/) on October 10<sup>th</sup> 2015.

## Community Based Rehabilitation for Persons with Differently Abled- An Analysis

**Dr.N.Rajavel**

Assistant Professor, Dept. of Social Work, Bharathidasan University, Trichy

### Abstract

*Community-based rehabilitation (CBR) was initiated by WHO following the Declaration of Alma-Ata in 1978 in an effort to enhance the quality of life for people with disabilities and their families; meet their basic needs; and ensure their inclusion and participation. While initially a strategy to increase access to rehabilitation services in resource-constrained settings, CBR is now a multi-sector approach working to improve the equalization of opportunities and social inclusion of people with disabilities while combating the perpetual cycle of poverty and disability. CBR is implemented through the combined efforts of people with disabilities, their families and communities, and relevant government and non-government health, education, vocational, social and other services. This paper is an analysis of pudhuvaazhvu project, Coimbatore district funded by World Bank on the services to the differently abled.*

**Key Words:** Community-based rehabilitation, strategy, differently abled, for quality of life.

### Introduction

Poverty has many aspects: it is more than just the lack of money or income. “Poverty erodes or nullifies economic and social rights such as the right to health, adequate housing, food and safe water, and the right to education. The same is true of civil and political rights, such as the right to a fair trial, political participation and security of the person”

“Wherever we lift one soul from a life of poverty, we are defending human rights.

And whenever we fail in this mission, we are failing human rights.”

—Kofi Annan, former United Nations Secretary-General

Poverty is both a cause and consequence of disability: poor people are more likely to become disabled, and disabled people are more likely to become poor. While not all people with disabilities are poor, in low-income countries people with disabilities are over-represented among the poorest. Often they are neglected, discriminated against and excluded from mainstream development initiatives, and find it difficult to access health, education, housing and livelihood opportunities. This results in greater poverty or chronic poverty, isolation, and even premature death. The costs of medical treatment, physical rehabilitation and assistive devices also contribute to the poverty cycle of many people with disabilities.

Addressing disability is a concrete step to reducing the risk of poverty in any country. At the same time, addressing poverty reduces disability. So poverty must be eliminated to achieve a better quality of life for people with disabilities, hence one of the main objectives of any community-based rehabilitation (CBR) programme needs to be to reduce poverty by ensuring that health, education and livelihood opportunities are accessible to people with disabilities.

It has been estimated that at least 10% of the world's population lives with a disability, the majority in developing countries in conditions of poverty. People with disabilities are among the world's most vulnerable and least empowered groups. All too often they experience stigma and discrimination with limited access to health care, education and livelihood opportunities. Community-based rehabilitation (CBR) was first initiated by the World Health Organization (WHO) following the International Conference on Primary Health Care in 1978 and the resulting Declaration of Alma-Ata. CBR was seen as a strategy to improve access to rehabilitation services for people with disabilities in developing countries; however over the past 30 years its scope has considerably broadened. In 2003, an International consultation to review community-based rehabilitation held in Helsinki made a number of key recommendations. Subsequently, CBR was repositioned, in a joint International Labor Organization (ILO)/United Nations Educational, Scientific and Cultural Organization (UNESCO)/WHO position paper, as a strategy within general community development for the rehabilitation, equalization of opportunities, poverty reduction and social inclusion of people with disabilities and in 2005, the World Health Assembly adopted a resolution (58.23) on disability prevention and rehabilitation, urging Member States "to promote and strengthen community-based rehabilitation programmes...". CBR is currently implemented in over 90 countries. These guidelines are a response to the many requests from CBR stakeholders around the world for direction in how

CBR programmes can move forward in line with the developments outlined above. In addition, the guidelines provide, after 30 years of practice, a common understanding and approach for CBR; they bring together all that is currently known about CBR from around the world and provide a new framework for action as well as practical suggestions for implementation. The guidelines are strongly influenced by the Convention on the Rights of Persons with Disabilities (CRPD)

This paper focused on community based rehabilitation service for differently abled through the poverty eradication and livelihood promotion from their past life. The pudhuvaazhvu project is funded by World Bank. It focuses mainly poverty eradication and livelihood promotion for identified beneficiaries. The target households were identified through “Participatory methodologies” like Social Mapping and Wealth Ranking. The Village Poverty Reduction Committee (VPRC) was formed by village panchayat. The program focused utmost transparency in the system on process. The identifying the potential beneficiaries under the scheme adopted the participatory process. The reviewing program through village panchayat (Gramasabha), Monitoring through MIS (Management Information System) also conduct post completion scrutiny through Social Audit.

### **Significance of the Study**

The approach of the program is adopted PLA- Participatory Learning and Action; it took long before action taken anomalies. The trend suggests people’s verdict is considered and counted. The bottom-up approaches were implemented. The approach of participatory will contribute in greatly in the performance appraisal, eventually lead the establishment of strengthen the gross root democracy in rural India.

### **Profile of Pudhu Vaazhvu Project – Coimbatore District**

Coimbatore is one of the most industrialized districts of Tamil Nadu. In 2011, Coimbatore district has a population of 34, 72, and 578 of which male and female were 17, 35,362 and 17, 37,216 respectively. The initial provisional data suggest a density of 748 in 2011 compared to 631 of 2001. Total area under Coimbatore district is of about 4,850 sq.km. Average literacy rate of Coimbatore in 2011 was 84.31, out of which male and female literacy was 89.49 and 79.16 respectively. With

regards to Sex Ratio in Coimbatore, it stood at 1001 per 1000 male well above the national average of 940.

The Coimbatore District Society of PudhuVaazhvu Project was formed in the year 2005 and the project implementation was commenced in 2006. The project is being implemented in two blocks of Tirupur District and three blocks of Coimbatore District. The Project covers three blocks of Coimbatore district in 37 Village Panchayats. Viz in Thondamuthur, Madukkarai from 2008 and in Annaimalai block from 2009. Totally Project is being implemented in 77 village panchayats comprising of 95 VPRCs in both districts. (77 General VPRCs and 18 Tribal VPRCs).The District Project Management Unit is constituted with District Project Manager, 5 Assistant Project Managers, 3 Team Leaders, 27 Facilitators, 2 Block Mental Health Professional and Administrative Staff members.

**Coimbatore District  
Blocks**



(Map Not to Scale)  
Digital Map Source : TWAD Board, Chennai  
Web Design : NIC, TNSC

**Mobilization of House Holds in SHGs:-**

Sl.no	Blocks	Total Population	Total House Holds	Target Population Identification through PIP					
				Tribal House Holds	Very Poor	Poor	Total Target House Holds	Differently abled Members	Vulnerable Members
1	Thondamuthur	54109	12421	684	894	2136	3030	536	887
2	Madukkarai	38436	7877	192	796	1408	2204	449	606
3	Anamalai	70365	19553	1010	2153	3936	6089	748	1617
<b>Total</b>		<b>162910</b>	<b>39851</b>	<b>1886</b>	<b>3843</b>	<b>7480</b>	<b>11323</b>	<b>1733</b>	<b>3110</b>

Source: Primary Data

The above table indicates that three blocks in Coimbatore district, the total population among the three blocks 162910, total households 39851, the identification of the target population the strategy were followed that Social Mapping, Participatory Identification of Poor (PIP) was categorized five different groups that is Tribal house-holds 39851, very poor population 3843, poor 7480, the total target house-holds 11323, Differently abled members 1733, vulnerable members 3110.

**Details of Self Help Groups in Project Block:-**

Sl.no	Blocks	New Women SHGs	Affiliated SHGs	Youth SHGs	Tribal SHGs	Differently abled SHGs	Total
1	Thondamuthur	74	205	8	16	47	350
2	Madukkarai	73	126	6	9	45	259
3	Annaimalai	183	611	20	45	92	951
<b>Total</b>		<b>330</b>	<b>942</b>	<b>34</b>	<b>70</b>	<b>184</b>	<b>1560</b>

Source: Primary data

The table shows that Self Help Group (SHG) of project area of Coimbatore district in three blocks formed the SHGs for Women, Youth, Tribal, and Differently abled. The women SHGs 330, Affiliated SHGs 942, Youth SHGs 34, Tribal SHGs 70, Differently abled SHGs 184.

### Revolving Fund, Direct Linkages & Economic Activity disbursements through SGSY and Bank Linkages:-

Sl.no	Blocks	+Affiliated Differently abled) SHGs	1 <sup>st</sup> Linkage		2 <sup>nd</sup> Linkage		3 <sup>rd</sup> Linkage	
			No of SHGs RF disbursed	Amount Rs. (Lakhs)	No of SHGs DL disbursed	Amount Rs. (Lakhs)	No of SHGs EA disbursed	Amount Rs. (Lakhs)
1	Thondamuthur	350	350	164.25	306	781.52	291	793.80
2	Madukkarai	259	259	124.90	218	501.45	211	505.90
3	Annaimalai	951	951	510.80	866	1440.10	567	1363.90
<b>Total</b>		<b>1560</b>	<b>1560</b>	<b>799.95</b>	<b>1390</b>	<b>2723.07</b>	<b>1069</b>	<b>2663.6</b>

Source: Primary data

The table explains clearly that through the project area of three blocks in Coimbatore district Differently abled persons benefited financially, the revolving fund and bank linkages through the program of SGSY. The total number of differently abled SHGs 1560, the financial benefits Rs.799.95 Lakhs.

**Individual Assistance to Differently abled & Vulnerable through Special Fund component:-**

Sl.no	Blocks	No of Eligible identified		No of Differently abled Received		No of Vulnerable Received		Total Amount utilized	
		Differently abled	Vulnerable	1 <sup>st</sup> dose	2 <sup>nd</sup> dose	1 <sup>st</sup> dose	2 <sup>nd</sup> dose	1 <sup>st</sup> dose	2 <sup>nd</sup> dose
1	Thondamuthur	536	887	477	43	887	85	70.79	11.00
2	Madukkarai	449	606	450	48	606	67	53.16	9.22
3	Anaimalai	748	1617	748	89	1617	149	112.50	18.69
<b>Total</b>		<b>1733</b>	<b>3110</b>	<b>1675</b>	<b>180</b>	<b>3110</b>	<b>301</b>	<b>236.45</b>	<b>38.91</b>

Source: Primary data

The table describes that number of individual assistance to differently abled and vulnerable through special fund component number of eligible identified differently abled 1733, identified number of vulnerable 3110, the total amount utilized Rs.236.45 lakhs. This fund utilized in project implementation area of three blocks in Coimbatore district.

**Individual Assistance through VPRC Additional Fund:**

Sl. no	Blocks	VPRC Fund received	Amount Rs. in Lakhs	Individual Assistance				Total Fund	
				Differently abled	Amount	Vulnerable	Amount	No of Persons	Amount
1	Thondamuthur	16	27.50	82	7.79	146	12.85	228	20.64
2	Madukkarai	11	23.00	93	7.46	160	12.80	253	20.26
3	Anaimalai	28	58.50	150	12.00	297	23.71	447	35.71
<b>Total</b>		<b>55</b>	<b>109</b>	<b>325</b>	<b>27.25</b>	<b>603</b>	<b>49.36</b>	<b>928</b>	<b>76.61</b>

Source: Primary data

The table indicates that differently abled individual assistance through Village Poverty Reduction Committee (VPRC), the three blocks of Coimbatore district 55 VPRC, persons with differently abled 109; the financial assistance benefited amount rupees 27.25 lakhs.

### Differently abled - Received National ID and Aids & Appliances through Project Interventions:-

Sl.no	Blocks	National ID Cards		Aids & Appliances	
		No. of Differently abled Eligible	No of persons received	No. of Differently abled Eligible	No of persons received
1	Thondamuthur	536	536	180	180
2	Madukkarai	449	449	119	119
3	Annaimalai	748	748	232	232
<b>Total</b>		<b>1733</b>	<b>1733</b>	<b>531</b>	<b>531</b>

Source: Primary data

The table explains that the target area of project implementation number of eligible differently abled persons 1733, all are received the national identity cards with intervention of pudhuvaazhu project area in Coimbatore district.

### Panchayat Level Federation (PLF)

Ikkarai Boluvampatti Panchayat Level Federation is functioning from 19.02.2010 It is registered under Tamil Nadu Societies Registration Act. 1975. The Executive Committee was constituted with 11 members. After the achievement of Milestones and appraisal by the Regional Appraisal and Monitoring Team, the PLF received Rs.14.68 Lakhs as Livelihood Corpus Fund (ASF). This PLF has also received Incentive Fund of Rs.1 Lakh after successful grading exercise by the Grading team.

### Common Livelihood Groups (CLGSs):-

The Target community members who are involved in a common activity have associated into a Common Livelihood Groups to access common services in procurements, transport, marketing, training and value additions enabling them to cut down costs and increase profits by collective action. Veterinary camps, training on dairy and animal management, book keeping, value addition and leveraging services through convergence is being done by Common livelihood groups. 138 Common livelihood groups have been formed.

**Formation of CLGs:-**

Sl. no	Blocks	Total No. of CLGs Formed	No. of Members		Total No. of CLGs opened Bank A/c.	No of Differently abled Received					
			Target	Non Target		Dairy	Goat	Poultry	Garments	Agriculture	Others
1	Thondamuthur	22	494	144	22	5	0	0	7	8	2
2	Madukkarai	13	425	23	13	3	4	0	2	0	4
3	Anaimalai	43	1126	181	43	20	7	1	3	1	11
<b>Total</b>		<b>78</b>	<b>2045</b>	<b>348</b>	<b>78</b>	<b>28</b>	<b>11</b>	<b>1</b>	<b>12</b>	<b>9</b>	<b>17</b>

Source: Primary data

The table shows that Common Livelihood Groups (CLGs) formed for differently abled persons in project area 78 groups formed and linked with bank and financial assistance provide for their livelihood promotion like Milk dairy, Goat rearing, Poultry, Garments business, and Agriculture activity.

**Identification of Differently abled**

Name of the VPRC	Total number of differently abled persons	Category										
		O H	V I	S H I	Lepro sy cured	M I	M R	C P	Auti sm	M D	ot he rs	Tot al
<b>IkkaraiBoluvampatti</b>	102	54	22	10	0	6	9	0	0	1	0	<b>102</b>

Source: Primary data

The above table shows that category of differently abled persons

**Differently abled - Received National ID and Aids & Appliances through Project Interventions:-**

Name of the VPRC	National ID Cards		Aids & Appliances	
	No. of Differently abled Eligible	No. of persons received	No. of Differently abled Eligible	No. of persons received
Ikkarai Boluvampatty	101	101	34	29

**Maintenance Grant, OAP & PHP Assistance - Differently abled through Project Interventions:-**

Name of the VPRC	Maintenance Grant		Old Age Pension (OAP)		
	No. of Differently abled Eligible	Received	IGN - OAP Received	Destitute - OAP Received	PHP - OAP Received
Ikkarai Boluvampatty	11	11	63	4	41

**Individual assistance to start Livelihood activities**

In this village, 100 Vulnerable and 101 differently abled persons identified through PIP have been assisted from the VPRC Special fund. Some of them have also received loan from Livelihood Corpus (AmudhaSurabhi) Fund from Panchayat Level Federation (PLF) to start livelihood activities.

**Conclusion**

The World Bank assisted poverty eradication program concentrate at varies level for the promotion of livelihood of the target area. It works micro level to macro level, like individual, group, community and specifically for the differently abled and vulnerable people. The progressive of their

livelihood changes, create among the confidence of individual, economic empowerment and social empowerment of the beneficiaries.

### References:

- 1) Disability prevention and rehabilitation: report of the WHO expert committee on disability prevention and rehabilitation. Geneva, World Health Organization, 1981 ([http://whqlibdoc.who.int/trs/WHO\\_TRS\\_668.pdf](http://whqlibdoc.who.int/trs/WHO_TRS_668.pdf), accessed 10 August 2010).
- 2) Declaration of Alma-Ata: International conference on primary health care, Alma-Ata, USSR, 6–12 September 1978, Geneva, World Health Organization, 1978 ([www.who.int/hpr/NPH/docs/declaration\\_almaata.pdf](http://www.who.int/hpr/NPH/docs/declaration_almaata.pdf), accessed 10 August 2010).
- 3) International consultation to review community-based rehabilitation (CBR). Geneva, World Health Organization, 2003 ([http://whqlibdoc.who.int/hq/2003/who\\_dar\\_03.2.pdf](http://whqlibdoc.who.int/hq/2003/who_dar_03.2.pdf), accessed 10 August 2010).
- 4) International Labor Organization, United Nations Educational, Scientific and Cultural Organization, World Health Organization. CBR: A strategy for rehabilitation, equalization of opportunities, poverty reduction and social inclusion of people with disabilities. Joint Position Paper 2004. Geneva, World Health Organization, 2004 ([www.who.int/disabilities/publications/cbr/en/index.html](http://www.who.int/disabilities/publications/cbr/en/index.html), accessed 10 August 2010).
- 5) Resolution WHA58.23. Disability, including prevention, management and rehabilitation. Fifty-eighth World Health Assembly, Geneva, 25 May 2005 ([www.who.int/disabilities/publications/other/wha5823/en/index.html](http://www.who.int/disabilities/publications/other/wha5823/en/index.html), accessed 10 August 2010).
- 6) Convention on the Rights of Persons with Disabilities. New York, United Nations, 2006 ([www.un.org/disabilities/default.asp?navid=12&pid=150](http://www.un.org/disabilities/default.asp?navid=12&pid=150), accessed 10 August 2010).

## A Study on Assistive Technology Devices for Differently Abled Persons

**\*M. Prabavathy**

Assistant Professor, Centre for Differently Abled Persons, Bharathidasan University, Tiruchirappalli, India

**\*\*P.Kannan**

Guest Lecturer, Centre for Differently Abled Persons, Bharathidasan University, Tiruchirappalli, India

**\*\*\*R. Nandhakumar**

Guest Lecturer, Centre for Differently Abled Persons, Bharathidasan University, Tiruchirappalli, India

### Abstract

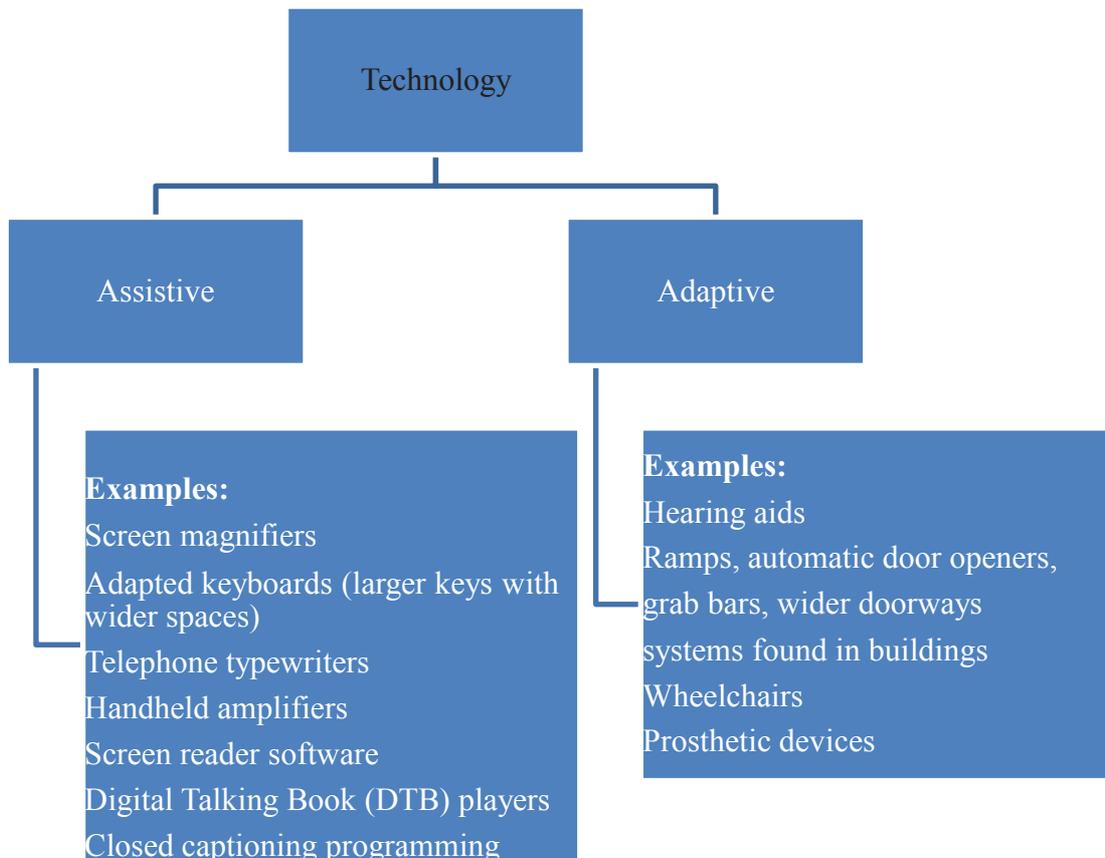
*In order to complete day-to-day activities effectively and efficiently, Technology plays vital role in human life. Especially, Assistive Technology devices support to differently abled people, in order to live their life very comfortably. Realizing the importance of Assistive Technology, this paper gives comprehensive analyses the types of Assistive software, Hardware and their usage for differently abled persons.*

**Keywords:** Differently abled Persons, Assistive Technology, Adaptive Technology

### Introduction

Education is right of every individual including people with disabilities. In order to cater to special needs of the differently abled students, they must be provided with the assistive technology devices as well as inclusive environment such that they can get an equal opportunity in order to achieve their academic goals in life.

Assistive Technology defines “Assistive technology device means any item, piece of equipment, or product system, whether acquired commercially off the shelf, modified, or customized, that is used to increase, maintain, or improve the functional capabilities of a child with a disability. The term does not include a medical device that is surgically implanted, or the replacement of that device” This paper provides information access to a range of assistive technology for all different disabilities including visual, hearing, mobility, and learning impairments.



**Figure 1: Types of Technology**

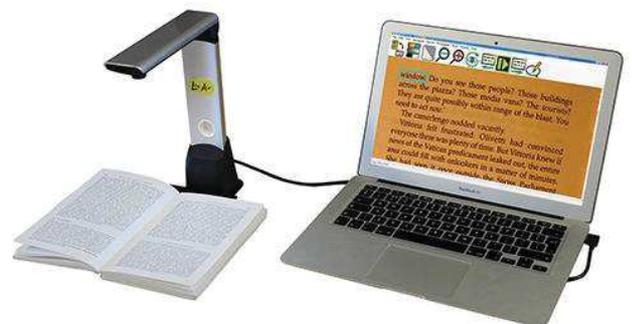
The remaining of this paper is organised as follows: Section II presents what are the assistive technology devices available for differently abled persons. Section III concludes this paper.

## Technology for differently abled persons

### Persons with vision impairment

Talking software using computers

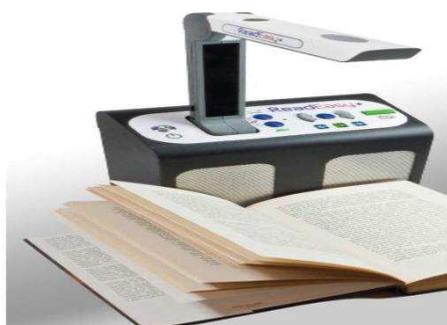
This Software converts a normal PC into a Talking PC to enable a blind person to operate the computer independently. They come in multi lingual edition, inbuilt tutorials for self learning computers, support for e-learning with multiple features for blind in education & employment.



**Figure 2: Instant Reader and Scanner**

**Text to speech Reading Machine:** It is an Instant Reader and Scanner. It is a highly portable camera system that gives its users instant access to practically any physical document. Placing any document under the camera and pressing enter will read the document with chosen visualization, colour and formatting.

### STAND ALONE READING MACHINE WITHOUT COMPUTER



**Figure 3: standalone reader without Computer**

It is a standalone reading machine and is used without computer. It translates any printed text into crystal clear speech within seconds. Letters, bank statements, books, product packaging etc. are all read with ease.

### Daisy player

Daisy player is an extremely helpful product for the blind and visually impaired. A Lightweight, Pocket size Daisy Player, Digital Talking E-book Reader, MP3 Player, Radio and Voice Recorder that can fit into any purse or pocket. It is a portable and powerful player which supports Daisy, TXT, HTM, HTML, WORD, EPUB, PDF, EBK and EBD MP3/Wma and more formats. In addition, it integrates functions such as voice menu navigation, universal storage slot, radio receiver, voice recording

bring more color full life essentials to the blind and visually impaired.

### Actile maker

**Tactile Graphic Maker:** produces high quality tactile graphics using tactile graphic paper. It is ideal for people who are blind and low vision. Its controlled heat source causes any black lines, letters or shapes that are drawn, printed or copied onto the graphic paper to swell & rise. The result is an instant tactile graphic. Handles paper sizes up to A3 (11x7 inches)



**Figure 4: Daisy player**



**Figure 5: Tactile Maker**

**Tactile Graphic Paper:** Specially treated heat sensitized paper suitable for creation of tactile images/drawings by taking a printout using an inkjet printer and then passing it through the PIAF to get a raised tactile diagram, which a blind person can easily, understand by running his fingers along the raised lines.

**Angel Pro Fully Talking AI in One Low Cost Portable DAISY Book Player, E-Book Reader, MP3 & Movie Player, Radio & Voice Recorder:** Pocket size battery operated reader cum recorder for the blind & low vision with all buttons talking & easy to use. It reads word, PDF, E-PUB, HTML, etc. Plays MP3 & movies. Variable Speed recording. Has Internal Recording facility of Radio broadcasts. Comes with 4 GB memory card expandable upto 32 GB

#### **Talking software for using computers**

**JAWS Pro for Windows Talking Software:** JAWS Software converts a normal PC into a Talking PC to enable a blind person to operate the computer independently. Comes in multi lingual edition, inbuilt tutorials for self learning computers, support for e-learning with multiple features for blind in education & employment.

**Talking Typing Software:** A talking tutorial that enables the blind to master the computer keyboard like a touch typist prior to learning to operate the computer with all 10 fingers. Has 40 Built-in lessons.

**Dolphin Supernova Access Suite :** Dolphin SuperNova Access Suite is unique in providing three ways to access any Windows PC and its applications. It is the ultimate access software that aids the vision impaired, from low vision to the blind, to use the computer to read or write documents, shop online or access emails using Magnification, Speech & Braille.

#### **Assistive technologies for braille**

##### **Braille Embossers & Braille Printers**

**Everest-D Braille n Print Embosser:** It supports multiple paper formats like portrait, landscape and the much liked in 4-page book format. It is equipped with a very stable sheet feeder. It has an automatic document split into Braille volumes. It is suitable for both volume production and as a home embosser Uses easily available cut sheet Braille Paper

### Supernova Screen Reader Magnifier

Supernova Reader Magnifier is unique in the access aid market because it combines magnification, speech and Braille output in a single program. This benefits both individuals and establishments alike, meeting a range of user requirements. It has many advanced options and features which are not available in any other software in the market



**Figure 5: Supernova Screen Reader**

**Duxbury Braille Translation Software:** For conversion of text into Braille for embossing on Braille Embossers. Now includes all major languages including Indian languages such as Hindi, Marathi, Gujarati, Punjabi, Haryanvi, Bengali, Tamil, Telegu, Kannada, Assamese, Oriya, Nepalese, Sinhala, Urdu, etc.

### Braille wrist watches

These are high quality quartz watches with Japanese imported quartz movement and battery of Sony, Japan. Three tactile dots indicate 12 o'clock, two dots indicate 3, 6 and 9, one dot indicates hours in between with the Lid opening at 6 o'clock position. The product is nickel free and healthy to users' body.



**Figure 6: Braille Wrist Watches**

### Partially blind & low vision persons computer access

**MAGic Pro Screen Magnification Software:** MAGic magnifies the computer screen from 1.1 to 36 times its normal size to suit the comfort level of the user. Has high definition feature for excellent clarity. Has an enhancement tool for maximizing visibility changing of background color contrast, changing of shapes, size, color of mouse & cursors, placement of borders on focus areas etc. Available with Indian Accent Voice Sangeeta

### Large Print Keyboard

The USB large print keyboard provides easy to see computer keys with extra large key legends for greater visibility and efficiency. Designed using low profile keys, with the largest legends available on the market. High quality keyboard rated for greater than 10 million keystrokes.

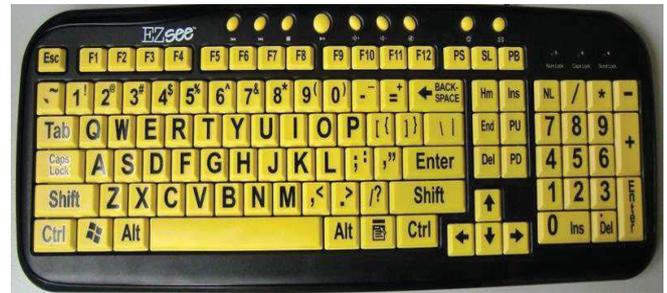


Figure 7: Large Print Keyboard

The Keys-U-See is a High-visibility full Multimedia keyboard for better computer access. The Keys-U-See large print keyboard is designed specifically for those with conditions that cause visual impairment or low vision, such as: Macular Degeneration, Glaucoma, Diabetic Retinopathy, Cataracts or age related vision loss.

### Mouse Magnifier

Mouse type magnifier is a powerful, portable, hand-held digital reading aid device designed for people with low vision. The size of a computer mouse has ergonomic design and is easy to operate. It connects directly to any TV/PC Monitor with video input port or USB port within seconds, allowing you to read news papers, magazines, recipe cards and even medicine labels. In addition, PC connection version could save snapshot pictures or video records on the PC hard disk for further review. Viewing modes include black on white, white on black, full color and high contrast.



Figure 8: Mouse magnifier

### Hand held video magnifiers

Handheld video magnifier has bigger screen display and it is convenient for user to read more content on the screen. Power save mode could effectively long battery life. Its 0 distance viewing technology makes contents readable even though user place magnifier flatly on reading material. 12 color

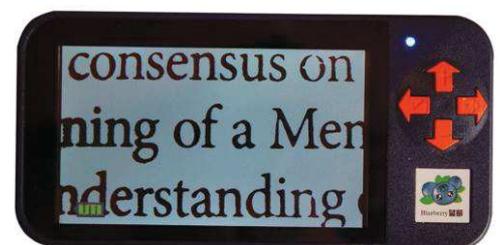


Figure 9: Hand Held Video Magnifiers

display modes could meet various needs from users. Image rotation function with 180° degree further improves user application. In addition, it adopts detachable battery design provide convenience for end users.

### **Products for dyslexia, slow learners & learning disabilities, persons with autism**

**Dolphin SaySo :** The perfect toolbar for dyslexia, learning and visual impairment or for anyone looking to build confidence with reading and writing. It is an easy to use application that can be used in classrooms, activity centres, libraries or organizations to build confidence in students to read - write documents, access ebooks, letters.

**Sound Beginnings - Making Sounds:** it is the third edition of this unique vocalization program, designed to encourage communication in young children and those with special education needs. Sound Beginnings Making Sounds encompasses even more exciting activities using voice stimulus.

**Memory Skills:** With Memory Skills, users practice exercises to build confidence in their short-term memory skills. Verbal instructions are reinforced with visual images, and instructions can be replayed using the "Repeat Speech" button. The activities in this program help teach the "silent rehearsal" technique for memory improvement. Students may choose to work with 2, 3, 4, or 5 images at a time, allowing for differentiation by ability.

### **Products for persons with cerebral palsy, locomotive and physical impairment**

#### **One Hand Keyboard**

Infogrip's BAT Keyboard is a one-handed, compact input device that replicates all the functions of a full-size keyboard, but with greater efficiency and convenience. The BAT is easy to learn and use. Letters, numbers, commands and macros are simple key combinations, "chords," that you can master in no time. Best of all the BAT's unique ergonomic design reduces hand strain and fatigue for greater comfort and productivity. The BAT is the ultimate typing solution for persons with physical or visual impairments.



**Figure 10: One Hand Keyboard**

### Foot Pedal Mouse

Foot Mouse (Slipper Mouse) is the world's only foot mouse with all hand mouse functions plus double click and shortcut buttons.



Figure 11: Foot Pedal Mouse

**Head/ Mouth Stick Keyboard:** 103-key concave shaped modified keyboard designed specifically for use with a mouth stick or head-wand by persons with paralysis neck down or having upper extremities with no hands or arms.

**5 Finger Typist Tutorial Software:** A typing program that teaches typing on the keyboard effectively with one hand, whether using the right or left hand. You simply place your fingers at the home position on the keyboard and mimic the animated on-screen hand movements through a series of typing exercises.

**IntelliTools Keyboards & Keyguards:** IntelliKeys is a programmable alternative touch sensitive keyboard that plugs into any Windows computer. It enables employees or students with physical, visual, or cognitive disabilities to easily type, enter numbers, navigate on-screen displays and execute menu commands. The specially designed keyguards (sold separately) provide clear demarcations enabling easy typing on other keys without errors.

**BigTrack TrackBall Switch Adapted** A unique alternative to the regular mouse for people with limited fine motor skills due to tremors, cerebral palsy, arthritis or any other mobility or learning impairment. A simple touch from the person's finger, hands or even a foot on the huge yellow ball is that is centrally placed helps him to cruise around the computer screen easily.

### Conclusion

Assistive Technology (AT) is serving people with disabilities to direct totally different lives than they might otherwise have managed. This paper presents the various types of assistive technology devices available for persons with vision impairment, partially blind & low vision. It also describes products for dyslexia, slow learners & learning disabilities, persons with autism. Moreover, it gives products for persons with cerebral palsy, locomotive and physical impairment.

## References

- 1) Dell, A. G., Newton, D. A., & Petroff, J. G. (2008). *Assistive technology in the classroom: Enhancing the school experiences of students with disabilities*. Upper Saddle River, N.J.: Pearson/Merrill Prentice Hall.
- 2) Kennedy, M. J., & Deshler, D. D. (2010). Literacy instruction, technology, and students with learning disabilities: Research we have, research we need. *Learning Disability Quarterly*, 33, 289-298.
- 3) Smith, D. W., Kelley, P., Maushak, N. J., Griffin-Shirley, N., & Lan, W. Y. (2009). Assistive technology competencies for teachers of students with visual impairments. *Journal of Visual Impairment & Blindness*, 103, 457-469.
- 4) Sahfi, M. Y., Zhou, L., Smith, D. W., & Kelley, P. (2009). Assistive technology in teacher-training programs: A national and international perspective. *Journal of Visual Impairment & Blindness*, 103, 562-568.
- 5) Kelly, S. M. (2008). Correlates of assistive technology use by students who are visually impaired in the U.S.: Multilevel modeling of the Special Education Elementary Longitudinal Study. Unpublished dissertation. Northern Illinois University, Illinois.
- 6) LDatschool, <https://www.ldatschool.ca/assistive-technology/> [2017] (Accessed: Nov 2017)
- 7) wikipedia, [https://en.wikipedia.org/wiki/Assistive\\_technology](https://en.wikipedia.org/wiki/Assistive_technology), [2017] (Accessed: Nov 2017)

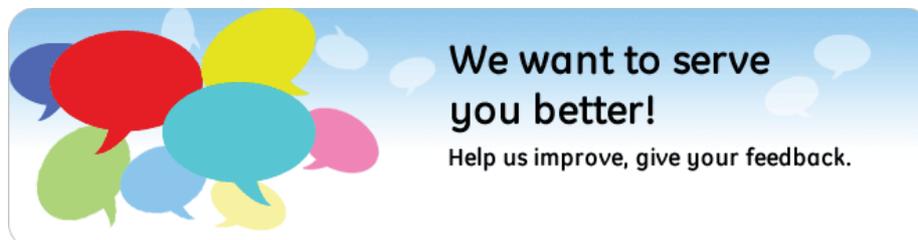


Our website : <http://samwaad.in>



Page: [www.facebook.com/samwaadwelcome](http://www.facebook.com/samwaadwelcome)

FB Group: [Samwaad\\_FB\\_GRP](#)



Email : [feedback.samwaad@gmail.com](mailto:feedback.samwaad@gmail.com)

**|| Copyright © 2018 ||**

---

The contents in the ejournal are protected & all the rights are with "SAMWAAD". Any reproduction/ republication of the same not permitted, without prior written premission/consent of the Chief editor.