

**PERSPECTIVE OF VISUALLY CHALLENGED CHILDREN TOWARDS USE OF INFORMATION AND COMMUNICATION TECHNOLOGY (ICT)****Dr. Gajanan Gulhane**
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Abstract:

Our universe is so beautiful with different cultures, but only a few are devoid of enjoying or experiencing such beauty because of their innate inability to see things around them. Education is one the fundamental rights and there is an international commitment to ensure that every child should receive basic education of good quality. But sufficient attention is not given to some marginalized groups of children with visually impaired in some of the underdeveloped nations. An attempt is being made to study the perspectives of visually challenged children towards the use of ICT in Amravati Division of Maharashtra. The aim of this paper was to examine present curriculum primary education and compare the perspective of visually challenged children towards the use of ICT in the education. Survey method was adopted and the data were analysed by using inferential statistics. The study reveals that, there is significant mean difference between the aspiration of visually challenged boys and girls towards the dimensions of ICT like ICT infrastructure and technical support and there is no significant mean difference between the aspiration of visually challenged boys and girls towards the dimension like ICT training and there are great extent of difficulties for the visually challenged children in using ICT enabled services.

Keywords: *Use of ICT; Visually Challenged Children*

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Introduction:

UNESCO (1994) states that, all children learn together, whatever possible, regardless of any difficulties or differences they may have. Inclusive schools must recognize and respond to the diverse needs of the students, accommodating both different styles and rates of learning and ensuing quality education to all through appropriate curriculum, necessary arrangements, teaching strategies, resource use and partnerships with their communities. The individuals are born with different abilities aptitude and capacities. Some are blessed with greater physical strength and are capable of doing physical exertion. Some are born with sharper mind and greater reasoning capacity so it is unfair and undemocratic if they are not given opportunities to accomplish what nature gave them power to do Education Commission 1964 66 headed by DS Kothari emphasize the importance of equalising education opportunities it states that equality of education office in the in an important social objective which means the equalization of external material circumstances of obtaining the education to



provide for individual differences for self-actualization and to train each individual to the maximum possible extent to make his unique contribution to society when each and every child is allowed and encouraged to progress at his own rate in an area that is suited to his needs then there is a equality. (Cited by Bala and Rao 2012).

Education for Visually Impaired:

The first school for the blind was started at Amritsar in the year 1887. In 1890, the school for the blind was started at Palayamkottai. These two institutes were started by foreign missionaries. Shri Lal Bihari Shah was the first Indian to start the Calcutta Blind school in 1897. The National Institute for Visually Handicapped (NIVH) was established in 1979 at Dehradun which is Engaged in production of Braille literature, aids and appliances, training of staff and Individuals with visual impairment, research etc. The pre-independence period which witnessed the growth of only 32 schools for the blind rose to a remarkable 400 in the post-Independence period.

Visual impairment is the functional and transitory loss occurs at external or tissue level, which primarily causes due to a) ocular, b) general diseases, and c) injuries. Visual impairment can lead to visual disability or visual handicap depending upon the degree of impairment and societal reaction. Students with visual impairments have unique educational needs which are most effectively met using a team approach of professionals, parents and students. In order to meet their unique needs, students must have specialized services, books and materials in appropriate media (including Braille), as well as specialized equipment and technology to assure equal access to the core and specialized curricula, and to enable them to most effectively compete with their peers in school and ultimately in society. Blindness refers to a condition where a person suffers from any of the following conditions, (i) Total absence of sight. (ii) Visual acuity not exceeding 6/60 or 20/200 (Snellen) in the better eye with correcting lenses; or (iii) Limitation of the field of vision subtending an angle of 20 degree or worse.

Influence of ICT in Education:

In the modern age, Information and Communication Technology (ICT) has influenced all aspects of human life, teacher education cannot be an exception. Now ICT has become an integral part of our lives. Over the past thirty five years, the use of ICTs has fundamentally changed the practices and procedures in the field of banking, tourism, share market, engineering, business, and post office. There has been less change in the field teaching than other fields. ICTs are one of the major contemporary factors shaping the global economy and producing rapid changes in society. Nowadays, teaching is becoming one of the most challenging professions in India where knowledge is expanding rapidly and much of it is available to students as well teachers at anytime and anywhere. The teacher's practically of special schools have to accept the demands of modern world and modify their old concepts and methods according to the needs of learners. Otherwise the teachers will be outdated in the coming future and it will deteriorate the quality of education.



Reviews of Related Literature:

The investigators have attempted to note down some points which are relevant to the study on previous literature and a theoretical overview of the study.

Stephen Turner et al. (2008) under taken a study on school and parental factors that influence the academic progress of children with disabilities'. It revealed that both school and parental factors that influence the academic progress of children with disabilities. Subudhi Siba (2010) conducted study on educational practical for low vision children in Garo hills of Meghalaya and found that besides their regular study they have other interests also which they are practicing such as reading stories, singing interacting with others which reflect their interest in co- curricular activities. Murthy GVS and Mactaggart Islay (2013) undertook the Key Informant Child Disability Project in Bangladesh and Pakistan with the purpose: to identify reasons for the non-uptake of referral for children with disability identified though the key informant method in Bangladesh. They found: seven thematic reasons for non-uptake of referral were identified: severity of the disability, family and community, direct and associated cost, location of referral, negative camp experience, deliberate non-uptake, and procedural problems. Parents often discussed multiple reasons for non-uptake, interrelating socio-cultural, logistical and experiential factors. Edward in 2016 published one interesting article entitled "ICT Utilization As Correlates of Academic Performance Among Students With Visual Impairment In Lagos State, Nigeria" with the objectives to identify types of ICT tools used by students with visual impairment in selected schools in Lagos state; to determine the level of ICT utilisation by students with visual impairment in selected schools in Lagos state and to determine the relationship between ICT utilisation and academic performance of students with visual impairment in selected schools in Lagos state. The study revealed that there is significant relationship between ICT utilisation and academic performance of students with visual impairment in Lagos state. Oliv and Anne in 2017 under taken a study on "Digital learning in mathematics for students with severe visual impairment: A systematic review" in Norwegian University of Science and Technology, Norway with the objective to summarize current evidence-based knowledge about e-learning in mathematics among students with severe visual impairment. The results showed that there is lack of scientific evidence to establish research-based practice related to e-learning programmes for students with VI.

With an overview of the above reviews, different research studies reported till date, most of the studies are related to the educational problems of children with visual impairment.

Research Questions:

From the above brief reviews of related literature, following questions were raised for an empirical study on the perspectives of visually challenged children towards the use of ICT in Amravati Division of Maharashtra.

- In spite of large investment and various strategies adapted by the Government, why the education of visually impaired is not improved?
- Is the backwardness and lack of awareness of the family members responsible for education of the students with disabilities, especially the visually impaired?



- What is the level of the academic achievements of students with disabilities especially the visually impaired?
- Are the misconceptions of the parents responsible for academic development of children with disabilities?
- Although, huge amounts are being spent for the noble cause of education and rehabilitation of students with visually impairments, those students are still deprived, deficient and deviated from the mainstream of educational and social race.

An attempt was being made to study the problem - perspectives of visually challenged children towards the use of ICT in Amravati Division of Maharashtra.

Objectives of the Study

The study was undertaken with the following objectives in view:

- To identify students with disabilities especially the visually impaired in the primary schools.
- To compare the perspective of visually challenged boys and girls towards the use of ICT.
- To know the parental views towards academic achievement of the children with disabilities especially the visually impaired.

Hypothesis of the Study:

Keeping in view the objectives of the study, the following hypothesis are formulated:

H₀: There is no significant mean difference in the perspective of visually challenged boys and girls towards the use of different dimensions of ICT.

Limitation of the Study:

This study was delimited to the disabled children especially the visually impaired, their parents, teachers, and heads of institutions at primary level in the Amravati division of Maharashtra. Also, this study was limited to local language, culture and availability of parents during data collection.

Methodology of the Study:

Survey method was used for this study. Amravati division is one of the major administrative divisions of Maharashtra included five districts Akola, Amravati, Buldana, Yavatmal and Washim. In this study 200 visually challenged children from primary schools of Amravati division were selected purposefully; some selected parents were considered. The techniques like participants' observation, conversational analysis, description and interpretative techniques were used. Further for the collection of data, a check list was prepared to inquire about educational facilities available for disabled students in the institution. A separate attitude scale was constructed to measure perspective of visually challenged children towards the use of ICT.

Analysis and Interpretation of Data:

The analysis of present data was done by using different inferential statistical techniques and percentage. The analysis and interpretation of perspective of visually challenged children towards the use of ICT has been reasonably presented in the following table.

Table-01



Perspective of Visually Challenged Children towards the use of ICT

Dimensions of ICT	Sample	N	Mean M	Standard Deviation	t-value	Significant
ICT Infrastructure	Boys	100	3.66	1.42	2.10	S*
	Girs	100	3.22	1.73		
Technical Support	Boys	100	3.06	1.46	2.76	S**
	Girs	100	2.50	1.38		
ICT Training	Boys	100	2.10	1.02	1.09	NS
	Girs	100	1.95	0.99		

Note: S* = Significant at 0.05 level; S** = Significant at 0.01 level; NS = Not Significant

The table-01 reveals that there is significant mean difference between the aspiration of visually challenged boys and girls towards the dimensions of ICT like ICT infrastructure at 0.05 level of significant only and technical support at 0.05 and 0.01 level of significant. Hence the null hypothesis is rejected for two dimensions of ICT viz. ICT infrastructure and technical support. Whereas there is no significant mean difference between the aspiration of visually challenged boys and girls towards the dimension like ICT training. Hence the null hypothesis is accepted for one dimension of ICT viz. ICT training.

Findings:

On the basis of analysis and interpretation of the field data; the investigators has drawn the following findings:

1. There is significant mean difference between the aspiration of visually challenged boys and girls towards the dimensions of ICT like ICT infrastructure and technical support and there is no significant mean difference between the aspiration of visually challenged boys and girls towards the dimension like ICT training.
2. As the medium of instruction for most students was Marathi, they faced difficulties in terms of the operating system, applications; fonts and literature which are in English.
3. Results regarding the use of ICT related technologies emphasize that girl's respondents are more active in using ICT enabled services than boy's respondents.
4. Among all the ICT devices, mobile phone is being used maximum by the respondents in the age group 10-18 as it helps them to communicate easily.
5. Respondents having rural background prefer to use screen reader software than respondents of urban area.
6. Average 80 % of parents stated that they put full efforts for academic progress of their children with visually impairment. But actually it is observed that, most of the parents have placed their wards in any of the formal educational set-up and they are not aware of the strengths and limitations of their children with visually challenges.
7. Some parents are illiterate, some are busy in earning to survive and some parents are over assured on their



wards.

Conclusion: This study has clearly demonstrated that there are great extent of difficulties for the visually challenged children in using ICT enabled services. Difficulties are in terms of handling, accessing, operating and using assistive and communication technologies. On the basis of above conclusions and discussion with teachers and their parents, Government and school management should support primary schools by giving more financial assistance to buy ICT equipment's and develop software in regional languages along with English.

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