

## **PERCEPTION OF STUDENTS WITH DISABILITIES (STUDYING IN INCLUSIVE SCHOOLS OF DELHI'S NORTH-EAST ZONE) TOWARDS TECHNOLOGICAL DEVICES BEING USED BY THEM**

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### **Abstract**

The purpose of this study was to explore the perception of students with disabilities towards technological devices being used by them. This study was conducted in the schools of three educational districts i.e. East, North- East and North of Delhi's North-East Zone. Purposive sampling method was used to select 30 schools (ten schools from each district) from this Zone; further researcher selected 30 students with disabilities from these schools (one student from each school). For this study three types of students with disabilities i.e. visual impairment, hearing impairment, and locomotor impairment were selected. Descriptive survey method was used to collect the data with five points Likert type scale, which was developed by researcher with the help of experts in the field of special education. Frequency, Percentage, Means and Standard Deviations were used for data analysis. Findings of the study show that students with disabilities have positive perceptions towards technological devices and they believed that these devices are very helpful in their educational inclusion.

**Keywords:** Perception, Students with disabilities, Technological devices



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## **INTRODUCTION**

Technological devices play a major role in providing equal opportunity and full participation of students with disability in schools as well as in society. These devices support students with disabilities to access information, to move freely in environment and to become independent. Many researchers (Parette et al. 2006; Anderson – Inman & Horney, 2007, Judge, Floyd, & Jeffs, 2008) have proved with their researches that success in school, employment, and life is directly influenced by one's ability to gain access to information and an immense amount of this information is obtained through the use of technological devices. Further they reported that technological devices are very useful in inclusion of students with disabilities. Since researchers try to find out the studies conducted in India about perception of

students with disabilities towards technological devices being used by them, but unable to find any such type of study. Hence, researchers decided to select this topic so that perception of students with disabilities towards technological devices in Indian context can be explored.

## **OBJECTIVE**

Objective of this study was to explore the perception of students with disabilities towards technological devices being used by them.

## **OPERATIONAL DEFINITION OF THE KEY TERMS USED**

- **Perception:** In the context of present study perception means thoughts of students with disabilities towards technological devices being used by them for their curricular and co-curricular activities, that is measured by the score obtained on the tool (five points rating scale).
- **Students with disabilities:** In the context of present study students with disabilities means those students with visual impairment, hearing impairment, and locomotor impairment who were enrolled in inclusive schools of Delhi's North-East Zone.
- **Inclusive schools:** In the context of present study inclusive schools referred to the Delhi Govt.'s schools i.e. Directorate of Education's (DoE) schools under jurisdiction of North-East Zone where both types of students i.e. students with disabilities and students without disabilities were studying together.
- **North-East zone of Delhi:** In the context of present study North-East zone of Delhi referred to three educational districts of Delhi i.e. East, North-East, and North.
- **Technological devices:** In the context of present study technological devices referred to any item, piece of equipment, or product system, whether acquired commercially, modified, or customized, that is used by students with disabilities for their daily living activities, curricular and co-curricular activities.

## **METHOD & PROCEDURE**

A descriptive survey study was carried out in the inclusive schools of Delhi's North-East Zone. The samples consisted of 30 inclusive schools of three educational districts of North-East zone of Delhi i.e. East, North-East, and North. There are total 114 schools in district East, 128 schools in district North-East, and 63 schools in district North. In district East, out of 114 schools students with disabilities were enrolled in 106 school. In district North-East, out of 128 schools students with disabilities were enrolled in 120 schools; while out of 63 schools of district North, 51 schools have enrolment of these students. Researcher used

purposive sampling to select the ten schools from each district (total 30 schools). The sample was selected according to the three criteria: (i) Educational districts of North-East zone only. (ii) Ten schools from each educational district (iii) Schools where maximum numbers of students with disabilities were enrolled.

Researchers developed tool (five points Likert type scale) namely “*Perception of Students with Disabilities towards Technological Devices (PSDTD)*” to collect the data. This tool included 20 items (statements). Among these 20 items 12 were positive items (i.e. item no. 1, 2, 3, 5, 7, 8, 9, 10, 13, 14, 19, & 20), and 8 were negative items (i.e. item no. 4, 6, 11, 12, 15, 16, 17, & 18). Participants were instructed to rate their opinion on five-point Likert-type responses ranged from Strongly Agree to Strongly Disagree. Tick marked (√) by respondents in column *Strongly Agree (SA)*, *Agree (A)*, *Cannot Say (CS)*, *Disagree (D)*, and *Strongly Disagree (SD)* of positive items of this tool were scored by 5, 4, 3, 2, 1 respectively; while for negative items scoring patterns reverse to that of positive one i.e. 1, 2, 3, 4, & 5 for *SA*, *A*, *CS*, *D*, & *SD* respectively.

### DATA ANALYSIS

After collection of data from 30 students with disabilities from above mentioned three educational districts of North-East Zone, quantitative data was analyzed. The responses given on tool i.e. PSDTD was used to analyze the data from the survey to determine the students with disabilities’ perceptions towards technological devices. All of the students fully completed the survey. No item responses were left blank. Frequencies, percentage, means, and standard deviations were used to assess the students with disabilities responses.

### FINDINGS OF THE STUDY

After analysis of the responses given by 30 students with disabilities in terms of frequencies, percentage, means, and standard deviations, researchers tabulated the findings. The summary of the statistics from the students with disabilities’ perceptions survey is presented in table 1.

**Table1: Perception of students with disabilities towards technological devices**

Item no. & details	SA (%)	A (%)	CS (%)	D (%)	SD (%)	M	SD
1 After admission in schools training was given to use technological devices	0.0	0.0	0.0	46.7	53.3	<b>1.47</b>	<b>0.507</b>
2 Teachers always assist me using technological devices	0.0	26.7	3.3	33.3	36.7	<b>2.20</b>	<b>1.214</b>
3 Teachers are trained in using technological devices	0.0	26.7	20.0	23.3	30.0	<b>2.43</b>	<b>1.194</b>
4 Use of technological devices disturbed	0.0	0.0	30.0	53.3	16.7	<b>3.87</b>	<b>0.681</b>

	fellow students							
5	Peer group always helps me in using technological devices	6.7	43.3	0.0	26.7	23.3	<b>2.83</b>	<b>1.391</b>
6	It is very difficult to use technological devices in the classroom	0.0	13.3	3.3	53.4	30.0	<b>4.0</b>	<b>0.946</b>
7	Technological devices enable me to access the curriculum more easily	36.7	46.6	10.0	6.7	0.0	<b>4.13</b>	<b>0.860</b>
8	Teachers always use the technological devices in classroom teaching	0.0	0.0	0.0	43.3	56.7	<b>1.43</b>	<b>0.504</b>
9	Use of technological devices gives me confidence to do any work easily	50.0	50.0	0.0	0.0	0.0	<b>4.50</b>	<b>0.508</b>
10	Technological devices reduce my limitations of disability	66.7	33.3	0.0	0.0	0.0	<b>4.60</b>	<b>0.479</b>
11	I can participate in curricular activities without the technological devices	30.0	30.0	0.0	36.7	3.3	<b>2.53</b>	<b>1.357</b>
12	Classroom is more interesting if I do not use technological devices	0.0	0.0	13.0	60.3	26.7	<b>4.13</b>	<b>0.628</b>
13	Technological devices are very essential to participate in co-curricular activities	10.0	30.0	13.4	33.3	13.3	<b>2.90</b>	<b>1.268</b>
14	Technological devices facilitate process of learning	40.0	53.3	3.3	3.4	0.0	<b>4.30</b>	<b>0.702</b>
15	Technological devices negatively affects my skill development	0.0	0.0	0.0	30.0	70.0	<b>4.70</b>	<b>0.466</b>
16	I have not received any type of training to use the technological devices	60.0	40.0	0.0	0.0	0.0	<b>1.40</b>	<b>0.498</b>
17	Technological devices do not help me to understand classroom lesson	6.7	26.7	10.0	33.3	23.3	<b>3.40</b>	<b>1.302</b>
18	Teachers do not assist me in using technological devices	40.0	46.7	10.0	3.3	0.0	<b>1.90</b>	<b>1.061</b>
19	I get sufficient time to use technological devices in the school	0.0	10.0	0.0	46.7	43.3	<b>1.76</b>	<b>0.897</b>
20	Overall technological devices are useful for education	53.3	43.4	3.3	0.0	0.0	<b>4.50</b>	<b>0.572</b>

**Note:** SA% = Percentage of Strongly Agreed, A% = Percentage of Agreed, CS% = Percentage of Cannot Say, D% = Percentage of disagreed, SD% = Percentage of Strongly Disagreed, M= Means, SD = Standard Deviations

The percentage distributions, means, and standard deviations for all 30 students with disabilities were computed for each of the individual survey items reflecting perceptions towards technological devices and are shown in table-1. Students with disabilities indicated the mixed perception towards technological devices i.e. positive and negative perceptions (responded by making *Agree* or *Strongly Agree* on positive statement and *Disagree* or *Strongly Disagree* on negative statement) towards the use of technological devices in curricular and co-curricular activities. The table-1 showed that students with disabilities marked the item no. 15 as the most positive response (M = 4.70, SD = 0.466); while the item

no. 16 was marked as most negative response ( $M = 1.40$ ,  $SD = 0.498$ ). It means that all students with disabilities were disagreed with the statement (item no. 15) i.e. *Technological devices make me dependent on the tool that negatively affects my skill development* (30% students with disabilities were *Disagreed* while 70% were *Strongly Disagreed*); while these students were agreed with the statement (item no. 16) i.e. *In school I have not received any training to use the technological devices* (60% students with disabilities were *Strongly Agreed* and 40% were *agreed*). Further the table also explored that even students with disabilities had not received any type of training in schools for using technological devices though they reported that these devices were very helpful in their curricular and co-curricular activities. Students with disabilities also reported that they did not find any difficulties in using their technological devices in inclusive classrooms, and classmates without disability helped them in using technological devices; though they did not find sufficient time in schools in using technological devices.

## **DISCUSSION & CONCLUSION**

Quantitative data analysis of Likert type responses of 30 students with disabilities from three educational districts of Delhi's North-East Zone explored the perceptions of these students. Perceptions of these students showed that technological devices are useful in curricular and co-curricular activities, and these devices supported them in educational inclusion, though there are some challenges in using technological devices in schools of Delhi. The findings of this study were supported by Lartz & Stout (2008); Hemmingsson, Lidstrom, & Nygard (2009); Ellis (2016); and Wang et al. (2017). These studies explored the perception towards use of assistive technology for students with disabilities being used by them and reported that most of the students with disabilities used assistive technology for educational purpose and these students also reported that these devices are beneficial for them.

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