

## Research paper

# A Study of Pre-Service Student's Attitude Towards Use of Helpful Technology in Teaching Learning Process

MD Minarul Hossain\*

Date Received: 2021/10/15      Date Accepted: 2021/11/06

### Abstract:

The present paper is focused on the study of pre-service student's attitude towards use of helpful technology in teaching learning process. A descriptive and survey method was used for the study. The sample consists of 150 pre-service students at B.ED and M.ED levels in the Department of Education, Aligarh Muslim University, Aligarh. Out of 150 BED and MED students 69 were male and the rest female. We adapted tools from the research work of Abani Gwanshak Shikded and Theresa Ledger and further the tools were modified according to the objective of the study. We developed a tool by ourselves to measure attitude of pre- service student's towards use of helpful technology in teaching learning process to disabled children. The data was tabulated and systematically analyzed, with the help of the Microsoft Excel. The data was fed in the Excel sheet and then analyzed using operations like converting the data into percentage, addition etc. and interpreted on the basis of objectives of the study. We took five types of helpful technology for various disabilities, namely, helpful technology for "visually impaired, reading impaired, hearing impaired, writing impaired and mathematically impaired" . The major findings of the study revealed that majority of the students are aware of helpful technology but they are not skilled in using helpful technology in teaching learning process and also majority of the pre-service students have favourable attitude towards the use of helpful technology in teaching learning process.

**Keywords:** Helpful technology, pre-service student's (B.ED and M.ED)

---

\* Master of Education (M.Ed), Aligarh Muslim University, 2020/02

**Introduction:**

In today's world technology is used in every sphere of life. But did you know that there are specific tech tools that can help people who learn and think differently? These tools are called helpful technology. Helpful technology includes any device, software, or equipment that helps people work around challenges so they can learn, communicate and function better in teaching learning process. Helpful technology refers to hardware and software designed to promote independence, to decrease reliance on other and to enable children with disabilities to learn those skills of independence and self-sufficiency. The successful implementation of any initiatives in an educational program depends upon the support and attitude of teacher involved. Pre-service students means B.Ed. and M.Ed. students, they are the future trained teachers of the nation. Pre-service students should have those skills of using helpful technology required for meeting the diversified needs of different disabled children.

**Research Gap:**

Jones, Williams & Rudinger (2018) conducted a study on how teacher knowledge of helpful technology significantly impacts student success with helpful technology and that many teachers enter the field feeling unprepared to implement these technologies with students. Ahmed, Areej (2018) worked on determination of educational professionals' opinions regarding the use of helpful technology in the classroom. The study of Laskowski, Reinecke & Chen (2018) discussed on the current use of instructional technology, and helpful technologies for support of individuals with learning disabilities as well as other disabilities in New York State. Erdem, Raziye (2017) explored the use of helpful technologies in the education of students with special educational needs. Onivehu, Ohawuiro & Oyeniran (2017) conducted a study on teachers' attitude and competence in the use of helpful technologies in special schools. Venkatesha (2017) conducted a study on use of helpful technologies for accessing information resources by the visually challenged students in Karnataka. Adebisi, Rufus, Liman, Longpoe & Patricia Kwazoom (2015) wrote a paper exposing the meanings and benefits and explaining about the necessity of applying helpful technology for children with learning disabilities. Farooq, Muhammad Shahid; Aasma; Iftikhar, Umaira (2015) presented a study on descriptive study which attempted to explore the effects of helpful

devices on the learning of hearing impaired students. Alnahdi, Ghaleb (2014) conducted a study on the role and benefits of using helpful technology in the Universal Design for Learning (UDL), in academic skills, and in transition services. Irrespective of his best efforts, the researcher could not find any study addressing pre-service student's attitude towards the use of helpful technology in teaching learning process. Pre-service student's means B.ED and M.ED students. After observing the above- mentioned studies researcher found that several studies on helpful technology were already conducted. But the researcher was not able to find any single study in the line, especially in pre-service students. As they are the future trained teachers of the nation, So, the question is :How can we discover pre-service students attitude towards the use of helpful technology in teaching learning process? The present study will try to find out the answer to this question and will try to fill the knowledge gap.

**Statement of the Problem:**

“A study of pre-service student's attitude towards use of helpful technology in teaching learning process”

**Operational Definition of the Terms:**

Following terms will be used in the present study. So it is important to define these terms clearly.

**Attitude**

In the present study, attitude refers to the likelihood of using helpful technologies as learning tools by a selection of students.

**Pre-Service Students**

This includes students who are currently enrolled at B.ED. and M.ED. levels.

**Objectives of the Study:**

The focus of the paper is on studying attitude towards use of Helpful Technology in teaching learning Environment by Pre-Service students from the Department of Education, Aligarh Muslim University, Aligarh. To carry out the present work, the following objectives were framed by the researcher:

1. To study the awareness of pre-service students about helpful technology.
2. To analyze the attitude of pre-service students towards the use of helpful technology in teaching learning process.
3. To find out the factors which hinder the utilization of helpful technology by pre-service students in teaching learning process.

#### **Delimitations of the Study:**

Present study has following delimitations :

- Sample consisted of only pre-service students.
- Data from Aligarh Muslim University was taken for study.
- A sample of only 150 students was taken for the present study.

#### **Methodology of the study:**

According to the nature of the objective, the study followed descriptive survey research.

#### **Population:**

Population of the study consists of pre-service students.

#### **Sample of the Study:**

Sampling of the study consisted of total 150 students who were studying at B.Ed. and M.Ed. levels at Department of Education, Aligarh Muslim University, Aligarh. Out of 150 BEd and MEd students and trainees, 69 were male and the rest female.

**Table 1. Sample of the Study**

Institution	Sample Distribution		Total Sample Size
Department of Education, Aligarh Muslim University	Male Sample	Female Sample	150
	69	81	

#### **Methods of Data Analysis:**

The data was tabulated and systematically analyzed, with the help of the Microsoft Excel. The data was fed in the Excel sheet and then analyzed using operations like converting the data into percentage etc. and interpreted on the basis of objectives of the study. Based on the

analysis of data, findings and suggestions for further studies have been given.

### **Analysis and Interpretation of Result:**

#### **Objective 1:**

**To study the awareness of pre-service students about helpful technology.**

At first tabulate the scores according to each level/ category and then describe it.

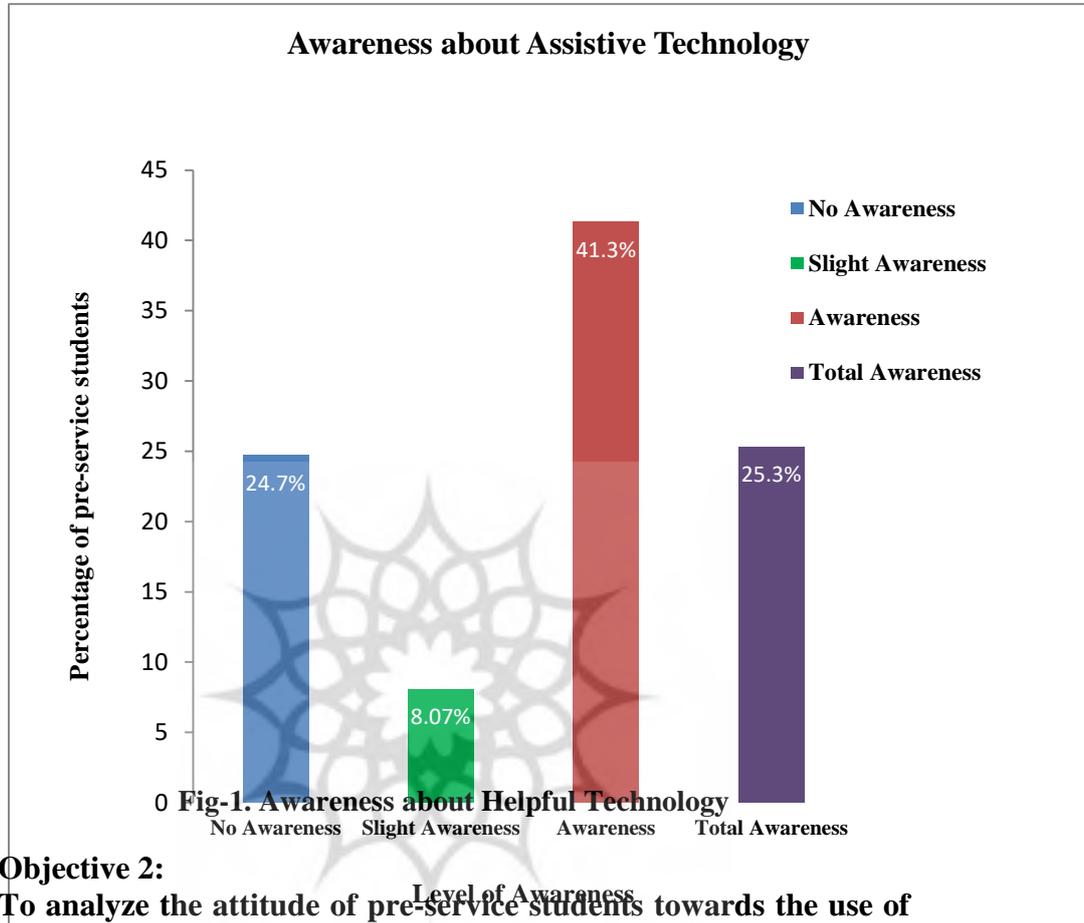
**Table 2. Showing the awareness about Helpful Technology**

<b>Level of Awareness</b>	<b>Percentage of pre-service students (%)</b>
No Awareness	24.7
Slight Awareness	8.07
Awareness	41.3
Total Awareness	25.3

In this table, we have compiled data on awareness of helpful technologies among pre-service students. We have classified the data into four categories, namely, "No Aware, Slight Aware, Aware and Total Aware." It was found that percentage of aware students topped the chart with percentage of 41.3% followed by the percentage of total aware students who occupied 25.3%. Percentage of students who were found to be slight aware is 8.07% and percentage of students who were not aware at all is 24.7%.

The analysis of the above table shows that almost half (41.3%) of the students are aware of the various helpful technologies available and 25.3% of the students were found to be totally aware. Also, the percentage of students who are not aware of the technologies at all is quite high, i.e 24.7%. All these have been presented in the Figure below.

The analyzed data given in the table is graphically represented as below:



**Objective 2:**

**To analyze the attitude of pre-service students towards the use of helpful technology in teaching learning process.**

The frequency of usage shows results that were inclined to low usage. An understanding of the possible attitude towards use of helpful technologies is to be known. This objective tends to analyze the attitude of pre-service students in using helpful technologies for various special needs.

**Table 3: Showing the attitude of pre-service students towards the use of Helpful Technology in teaching learning process**

To measure the attitude of pre-service students for using helpful technologies in general scores are categorized as follows in Table:

**Table 4. Range of scores obtained on Attitude Scale**

Attitude of Pre-service students	Range of scores
Highly Favorable	92.7-125
Favorable	59.3-91.7
Unfavorable	25-58.3

Table describes the attitude of Pre-Service students towards the use of Helpful Technology in teaching learning process. The attitude of the pre-service students was explained in terms of Highly Favourable, Favourable and Unfavourable.

**Table 5. Percentage of pre-service students in each category of attitude**

Attitude of pre-service students	Number of pre-service students	Percentage of pre-service students (%)
Highly Favourable	50	33.33
Favourable	98	65.33
Unfavourable	2	1.33

After the analysis of the collected data, it was found that 33.33% of the pre-service students have highly favourable attitude towards the use of helpful technologies. 65.33% of the pre-service students have favourable attitude while only 1.33 % have shown unfavourable attitude towards the use of helpful technology in teaching learning process.

The analyzed data given in the table is graphically represented as follows;

پرویشگاه علوم انسانی و مطالعات فرهنگی  
پرتال جامع علوم انسانی

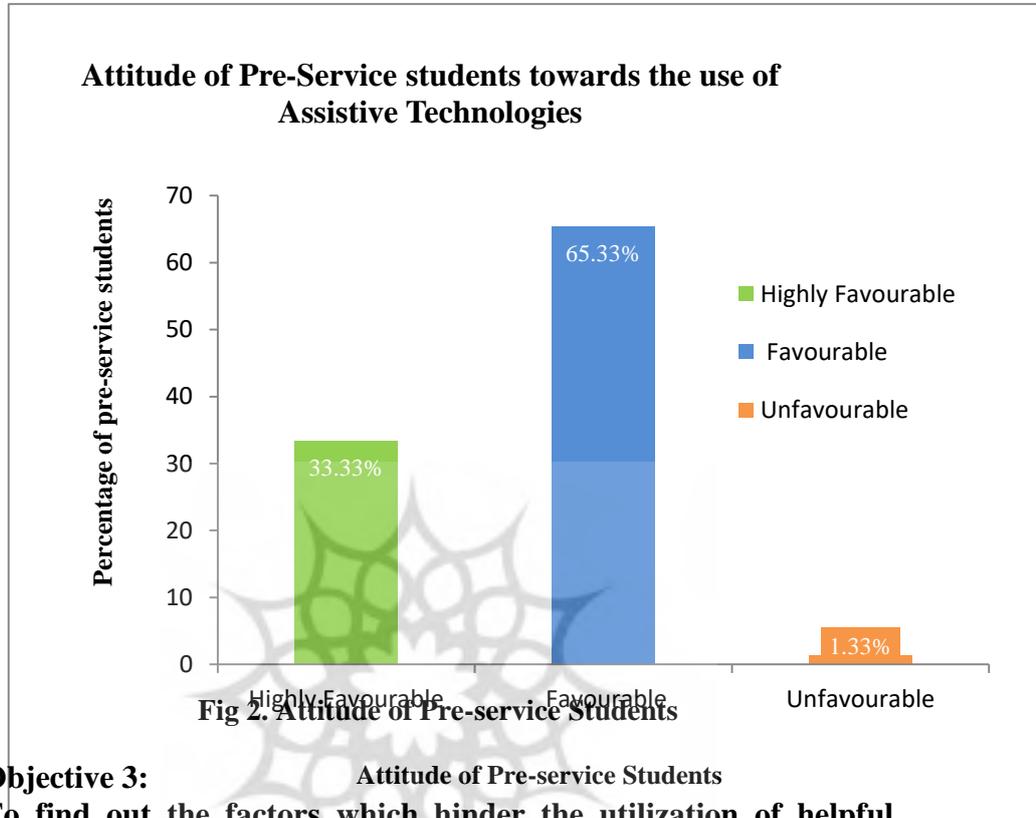


Fig 2. Attitude of Pre-service Students

**Objective 3:**

**Attitude of Pre-service Students**

**To find out the factors which hinder the utilization of helpful technology by pre-service students in teaching learning process.**

This objective was framed to determine the factors which may hinder the usage of helpful technologies by pre-service students in their teaching learning process. The analysis of this objective was done leading to the categorization of the content analysis results into groups namely “ not economical, lack of expertise in using helpful technology, knowledge about helpful technology, time consuming, no availability.

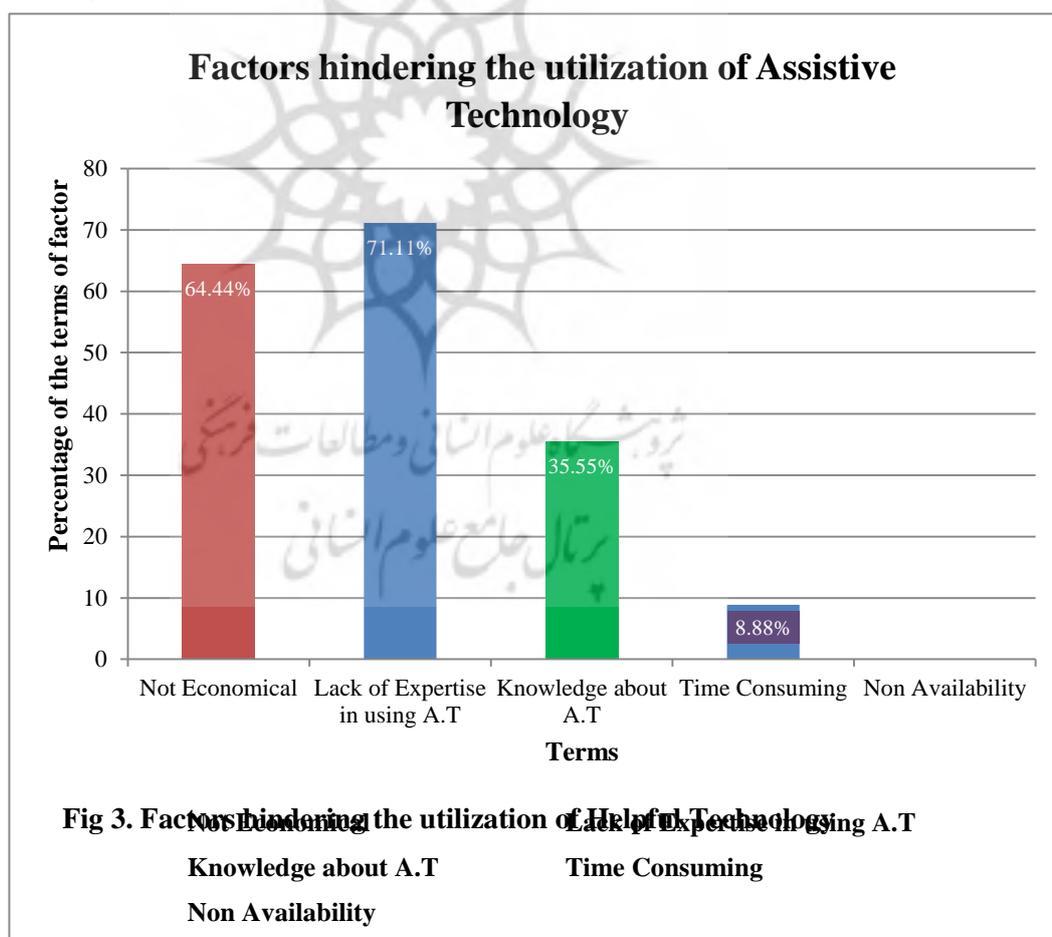
**Table 6. Percentage of pre-service students and the factors hindering utilization of helpful technology**

Factors	Number of the students	Percentage of the term of the factor (%)
Not Economical	29	64.44
Lack of Expertise in using A.T	32	71.11

Factors	Number of the students	Percentage of the term of the factor (%)
Knowledge about A.T	16	35.55
Time Consuming	4	8.88
Non Availability	16	35.55

According to the percentages of hindering factors about the utilization of Helpful Technology, lack of expertise in using helpful technology was with the highest percentage 77.11% followed by the percentage of not economical who occupied 64.44% . 35.55% of the students said that they are aware about helpful technology but non available in teaching leaning process. Percentage of the students who were found to be time consuming is 8.88%.

The analyzed data given in the table is graphically represented as follows;



**Finding:**

1. The researcher has found that majority of the respondents are aware about helpful technology.
2. The researcher has found that pre-service students have favourable attitude towards the use of helpful technology in their teaching learning process.
3. The researcher has found the factors hindering the utilization of helpful technology; students have different perception about helpful technology.
4. Majority of the respondents are aware about helpful technology but they are not highly skilled in using helpful technology in teaching learning process.
5. The researcher has found that respondents are aware about helpful technology but they are using them in the least in teaching learning process.

**Educational Implications of the study:**

- We need to promote awareness about Helpful Technology to pre-service students, teachers and parents.
- Helpful Technology helps disabled students to perform like normal students in the inclusive classroom.
- Helpful Technology helps disabled students to increase the capabilities to perform independently.
- The training for teachers at pre-service and in-service levels should address the integration of Helpful Technology for the successful inclusive classrooms.
- Teachers are to be made more aware about different types of Helpful Technology.
- Teachers are aware about different types of laws and policies for disabled students' needs in the classroom.
- There should be a proper funding from the administration for the integration of Helpful Technology in an inclusive classroom.

**Conclusion:**

From the findings of the present study, it is concluded that the awareness level is high about helpful technologies among majority of pre-service students. The high use of internet to acquire knowledge can also be one of the reasons of awareness. Next the researcher has

found that majority of the pre-service students have favourable attitude towards the use of helpful technologies in teaching learning process. As regards the hindering factors about the utilization of helpful technologies, some students say that it is not economical, some students say that lack of expertise in using helpful technologies is problematic, some students say that only knowledge about helpful technology is a hindering factor, some students say this for time consuming, and some students say that it is non-available in the school. Researcher has found that the hindering factor of the utilization of the helpful technology is that most of the students are aware about helpful technology but they are not highly skilled in using the helpful technology in teaching learning process.

#### **Suggestions for further study:**

Based on the result of this research, the following suggestions were made for further Studies:

- ❖ As this researcher investigated pre-service student "awareness and attitude of helpful technology devices" only there is therefore need for a research into the impact of helpful technology devices on the academic performance of children with special needs.
- ❖ There is a further need of study in the area of evaluating the special education's teacher Training programmed in India.
- ❖ This research was conducted at the education department of Aligarh Muslim University; thus, there is a need for a research into the difference in the availability of helpful technology devices between private and public schools.
- ❖ Another research is needed to determine the difference between the helpful technology devices potentiality of special education and regular teachers teaching in inclusive schools.

#### **Recommended Citation**

MD Minarul Hossain., (2021). A Study of Pre-Service Student's Attitude Towards Use of Helpful Technology in Teaching Learning Process. *International Journal of Digital Content Mangement*, 2 (3), 165-176.

**References:**

- Adebisi, R. O., Liman, N. A., & Longpoe, P. K. (2015). Using Helpful Technology in Teaching Children with Learning Disabilities in the 21st Century. *Journal of Education and Practice*, 6(24), 14-20.
- Ahmed, A. (2018). Perceptions of using helpful technology for students with disabilities in the classroom. *International Journal of Special Education*, 33(1), 129-139.
- Alammary, J., Al-Haiki, F., & Al-Muqahwi, K. (2017). The Impact of Helpful Technology on Down Syndrome Students in Kingdom of Bahrain. *Turkish Online Journal of Educational Technology-TOJET*, 16(4), 103-119.
- Alnahdi, G. (2014). Helpful Technology in Special Education and the Universal Design for Learning. *Turkish Online Journal of Educational Technology-TOJET*, 13(2), 18-23.
- Alodail, A. K. (2014). Instructing Educators in the Use of Helpful Technology Listening Devices in the Classroom. *International Education Studies*, 7(5), 55-67.
- Erdem, R. (2017). Students with special educational needs and helpful technologies: A literature review. *Turkish Online Journal of Educational Technology-TOJET*, 16(1), 128-146.
- Farooq, M. S. (2015). Learning through Helpful Devices: A Case of Students with Hearing Impairment. *Bulletin of Education and Research*, 37(1), 1-17.
- Jones, B., Williams, N., & Rudinger, B. (2018). Designing and Implementing an Helpful Technology Lab for Postsecondary Education. *Education Sciences*, 8(1), 11.
- Laskowski, M. M., Reinecke, D. R., & Chen, H. L. (2018). Technology Supports for Individuals with Disabilities in New York State: A Survey of Current Status.
- Ledger, T. (1999). Teacher knowledge and attitudes towards the utilization of helpful technology in educational settings.
- Onivehu, A. O., Ohawuiro, O. E., & Oyeniran, B. J. (2017). Teachers' Attitude and Competence in the Use of Helpful Technologies in Special Needs Schools. *Acta Didactica Napocensia*, 10(4), 21-32.
- Shikden, A. G. (2015). A survey of teachers' awareness and use of helpful technology in teaching children with special needs in North Central Nigeria (Doctoral dissertation, University of Jos).