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ATTITUDE TOWARDS THE CONFIDENCE AND KNOWLEDGE OF USING TECHNOLOGY DURING B.ED. INTERNSHIP: A STUDY

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ABSTRACT:

Technology has become an indispensable part of today's life, shaping the way we communicate, acquire knowledge and perform everyday tasks. Technology has significant contribution in the teaching-learning process. However, to cope up with the present-day students, present and future teachers should possess the knowledge of using technology in the teaching-learning process. The present paper aims to study the attitude of student-teachers towards the confidence and knowledge of using technology during internship. The study found the difference in the attitudes of male and female student-teachers towards the confidence and knowledge of using technology during internship and found the attitude of male student-teachers to be better when compared to female student-teachers. The findings of the study will help the institute authorities to bridge the confidence gap and help in the overall development of the student-teachers.

KEYWORDS:

ATTITUDE, CONFIDENCE, KNOWLEDGE OF TECHNOLOGY, B.ED. INTERNSHIP.

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1.0 INTRODUCTION

Maintaining national productivity and efficiency requires educational systems to adapt effectively to contemporary requirements. Driven by India's rapidly growing economy, pervasive digital platforms are reshaping how citizens work, socialize, and study. To meet these evolving requirements, academic programs must move beyond traditional physical classrooms and adopt inventive approaches that deliver a rigorous, comprehensive curriculum. Furthermore, to succeed in competitive global universities and the corporate world, Indian students need to master advanced technical skills and complex problem-solving. Because education is not a standardized, one-size-fits-all process, technological breakthroughs offer a unique chance to customize learning, optimize time management, and restructure teaching methods. To support this shift, a wide range of initiatives have been introduced to boost technology usage throughout India.

The word 'technology' has been derived from the Greek words 'techne' which means art or craft and 'Logia' which mean systematic study. The term "technology" describes the scientific understanding and tools required for a specific business, etc. It is the structured implementation of conceptual insights, designed to be reliably replicated to accomplish practical goals. The products of such attempt or venture can be termed as technology, comprising both ethereal (like software) and material (like machines or utensils) instruments. Technology is essential to everyday living, science, and engineering.

Teacher education occupies a central place in the total programme of education. It is the key to qualitative improvement of education in the country. Teacher education can be defined as a specialized type of activity designed to equip the prospective teachers with deep insight, appropriate knowledge, right attitude and required skills for teaching. It enables the teachers to grasp the underlying principles and critical methods of teaching, develop a mental culture to appreciate fundamental concepts and develop their own free judgement and sense of intellectual independence (Adaval, 1984). To stay in step with the fast-technological advancement of our society, educators must model the expertism and ethics expected of modern digital professionals. Integrating technology is no longer an optional add-on; it is a keystone of effective modern technology. With the help of advanced innovations, educators can tackle technology creatively across the

whole instructional cycle- from curriculum development and teaching to conducting regular assessments, providing personalized interventions, and monitoring student progress. The National Education Policy of India, 2020 has also focused on the usage of technology in education. A totally new sectors of industry has been cultured by the advancement in technology and it has generated a heterogeneous environment of professional career paths. Computer technology has merged to form the new field called Information and Communication Technology.

Educational technology is not only the application of technology in education or technology of education, but it is the accommodation of both to make education more effective and more meaningful for both the teachers and the students. Educational technology is an assimilation of both hardware and software approach in education. The objective of educational technology is not only about introducing gadgets into a classroom, but a systematic process of designing, implementing, and evaluating tools and resources to improve the quality of education.

1.1 BACKGROUND OF THE STUDY

It is always important to effectively use the existing resources rather than quantity of resources at hand. Before the onset of computers and the internet, the teaching-learning process relied mainly on printed resources like books, journals, dictionaries, and workbooks. Nevertheless, it was inaccessible for everyone because of the high costs and restricted access of the printed materials. But, in the recent years, the evolution of technology has increased the importance of the electronic versions of books and journals, highlighting the need to digitize the printed resources for improved accessibility and sustainability over time. This shift calls for the understanding of various types of e-resources, creating digital libraries, and saving these resources for future use. The Indian education system is among the oldest in the world, but it is not the most technologically advanced when compared to other nations.

Gauhati University is the oldest university in northeast India. Earlier, the university offered B.Ed. course for 1 year, later, it introduced its two-year B.Ed. course in the year 2015, where they introduced a paper in the first-year course– 'ICT and Classroom Transaction' for the enhancement of professional capacity. The objective of the paper is to make the student-teachers understand the concept of ICT in education, familiarize them with computer software technologies and develop an understanding of the process of technology mediated communications. The paper includes fundamentals of computer, various applications of computer software in school learning program, internet and its application.

1.2 SIGNIFICANCE OF THE STUDY

In today's digital era, each and every field demands integration and adequate knowledge of technology. After the COVID-19 break out, teaching-learning process is also not remained untouched. In today's world to cope-up with the students, the school teachers should have adequate technological knowledge, without which their job would be difficult. Different in-service training programs for school teachers in online mode has been launched by the government. There are digital applications like DIKSHA, online platform like SWAYAM, e-Pathshala which provides online training in different subjects. Philosophy of educational technology includes personalized learning, respecting the diversity of all learners and providing opportunities for learning through discovery. It is a tool that affords the opportunity to differentiate teaching to best meet the needs of students in a learner centered environment. The study will find out how much the future teachers are comfortable with the ongoing technology in the field of education. It is impossible to manage any educational institution without the efficient performance and innovativeness of teachers. The study will explore the attitude of the student-teachers towards the confidence and knowledge of using technology during B.Ed. internship under Gauhati University, as it is a university of notable importance because it is the oldest university in Northeast India. Many students from different parts of the state compete hard to get admission into its teacher training colleges.

1.3 REVIEW OF RELATED LITERATURES

Wright and Wilson (2011);Ottenbreit et al. (2012); Ertmer et al. (2012); Herro et al. (2021); Nagarkoti (2005); Manavalan (2018); Gollapalli (2020); found in their studies that the five teachers who were at Hooper and Rieber's reorientation or evolution phases were teachers who had continued professional development, had engaged students in using technology, and had support from their school community; teachers and teacher educators demonstrated similarities in their views regarding the use of technology for personal productivity, information presentation, and the access and use of electronic resources to support teaching and learning, teacher educators and teachers differed with regard to their use of technology for communication, analysis of student data, documenting professional growth, and facilitating higher-order thinking skills; student-centred beliefs undergirded student-centred practices (authenticity, student choice, collaboration), teachers' own beliefs and attitudes about the relevance of technology to students' learning were perceived as having the biggest impact on their success; teacher educators believed the TETCs were important, but most perceived their practices with teacher candidates were weak, and teacher educators with a higher proficiency with technology scored higher on their beliefs and practices with technology integration; the status of hardware educational technologies was found to be in a pitiable condition in the government teacher training institutes and the attitude of the male teacher educators was found more favourable towards functional convenience of hardware educational technology, also it was revealed that the teacher educators belonging to science stream were having more favourable attitude towards educational technologies than their counterparts; the learning style with ICT, attitude and perception

towards ICT of student teachers is high, but, also there was significant difference in learning styles with ICT with respect to gender and their optional subject of Arts and Science; the student teachers expressed high perception with respect to general computer awareness, where, in comparison among male and female respondents, male respondents expressed high perceptions than female, respectively.

2.0 OBJECTIVES

a) To find out the mean scores of attitudes of male and female student-teachers towards the confidence and knowledge of using technology during B.Ed. internship on the whole.

b) To find out the mean scores of attitudes of male and female student-teachers towards the confidence and knowledge of using hardware features of computer during B.Ed. internship.

c) To find out the mean scores of attitudes of male and female student-teachers towards the confidence and knowledge of using software features of computer during B.Ed. internship.

d) To find out the mean scores of attitudes of male and female student-teachers towards the confidence and knowledge of using system approach of computer during B.Ed. internship.

e) To find out the mean scores of attitudes of male and female student-teachers towards the confidence and knowledge of using strategies and methods of computer during B.Ed. internship.

3.0 HYPOTHESES

$H_0$1: There is no significant difference in the mean scores of attitudes of male and female student-teachers towards the confidence and knowledge of using technology during B.Ed. internship on the whole.

$H_0$2: There is no significant difference in the mean scores of attitudes of male and female student-teachers towards the confidence and knowledge of using hardware features of computer during B.Ed. internship.

H_A3: There is significant difference in the mean scores of attitudes of male and female student-teachers towards the confidence and knowledge of using software features of computer during B.Ed. internship.

$H_0$4: There is no significant difference in the mean scores of attitudes of male and female student-teachers towards the confidence and knowledge of using system approach of computer during B.Ed. internship.

$H_0$5: There is no significant difference in the mean scores of attitudes of male and female student-teachers towards the confidence and knowledge of using strategies and methods of computer during B.Ed. internship.

4.0 METHODOLOGY

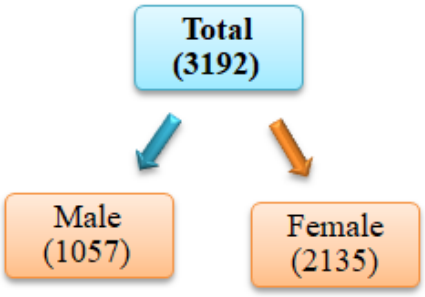
4.1 RESEARCH DESIGN

The study applies descriptive survey research design. It is an approach of descriptive research that blends quantitative and qualitative data to provide relevant and accurate information. Descriptive research studies are designed to acquire relevant, accurate and correct information concerning the current status of phenomena and, whenever possible, to draw valid general conclusions from the facts discovered.

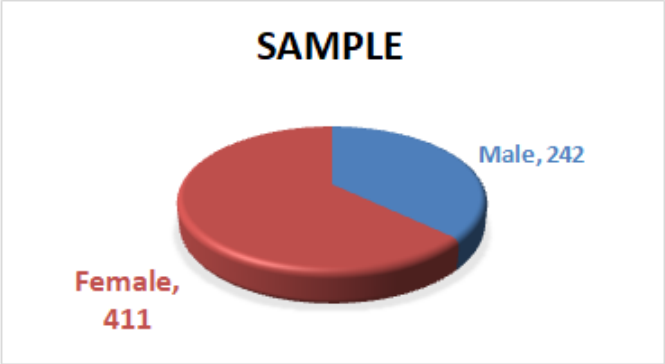
4.2 POPULATION

The population for the study was the final year student-teachers at B.Ed. colleges, under Gauhati University of Assam. There are total 38 B.Ed. colleges under Gauhati University. There are total **3192** student-teachers in the final year in the institutes among which **1057** are male and **2135** are female. The population has been collected by visiting the colleges personally; some over phone call with the institutes' Principal and from the admission records of the colleges of 2022-23 session affiliated with Gauhati University.

4.3 SAMPLE



The sample for the study was selected by using simple random technique wherein 20 percent (242) of the male student-teachers population and 20 percent (411) of the female student-teachers population has been taken under consideration for data collection.



4.4 TOOL USED

A self-constructed and developed five-point Likert attitude scale (Strongly Agreed, Agreed, Undecided, Disagreed, Strongly Disagreed) was used to collect the data.

4.5 PROCEDURE OF DATA COLLECTION

The researcher personally visited the B.Ed. colleges under Gauhati University, took permission from the college authority and interacted with the student-teachers in their respective colleges to collect information and data.

4.6 STATISTICAL TECHNIQUES

t-test, Mean, Standard Deviation, percentage, tables and graphical representation have been used in the study.

5.0 DATA ANANLYSIS AND INTERPRETATION

1. To find out the mean scores of attitudes of male and female student-teachers towards the confidence and knowledge of using technology during B.Ed. internship on the whole.

$H_0$1: There is no significant difference in the mean scores of attitudes of male and female student-teachers towards the confidence and knowledge of using technology during B.Ed. internship on the whole.

TABLE-1: *'t' VALUE FOR THE CONFIDENCE AND KNOWLEDGE OF USING TECHNOLOGY DURING B.ED. INTERNSHIP ON THE WHOLE*

Sl. No.	Category	N	M	SD	df	't' value	Level of significance at 0.01 level (2.58)
1	Male	242	41.9	13.4	651	1.98	Not Significant
2	Female	411	39.7	14.3			

INTERPRETATION

For the mean difference of scores of attitudes of male and female student-teachers towards the confidence and knowledge of using technology during B.Ed. internship in the whole, the 't' value found to be 1.98, which is not significant at 0.01 level when the df is equal to 651.

Therefore. The constructed hypothesis, "There is no significant difference in the mean scores of attitudes of male and female student-teachers towards the confidence and knowledge of using technology during B.Ed. internship on the whole" is retained. And, the mean value of attitude of male and female student-teachers is 41.9 and 39.7 respectively. This indicates that the attitude of male student-teachers towards the confidence and knowledge of using technology during B.Ed. internship on the whole is better than the female student-teachers.

2. To find out the mean scores of attitudes of male and female student-teachers towards the confidence and knowledge of using hardware features of computer during B.Ed. internship.

$H_0$2: There is no significant difference in the mean scores of attitudes of male and female student-teachers towards the confidence and knowledge of using hardware features of computer during B.Ed. internship.

TABLE-2: *'t' VALUE FOR THE CONFIDENCE AND KNOWLEDGE OF USING HARDWARE FEATURES OF COMPUTER DURING B.ED. INTERNSHIP*

Sl. No.	Category	N	M	SD	df	't' value	Level of significance at 0.01 level (2.58)
1	Male	242	17.4	5.5	651	1.8	Not Significant
2	Female	411	16.6	5.9			

INTERPRETATION

For the mean difference of scores of attitudes of male and female student-teachers towards the confidence and knowledge of using hardware features of computer during B.Ed. internship, the 't' value found to be 1.8, which is not significant at 0.01 level when the df is equal to 651.

Therefore, the constructed hypothesis, "There is no significant difference in the mean scores of attitudes of male and female student-teachers towards the confidence and knowledge of using hardware features of computer during B.Ed. internship" is retained. And, the mean value of attitude of male and female student-teachers is 17.4 and 16.6 respectively. This indicates that the attitude of male student-teachers towards the confidence and knowledge of using hardware features of computer during B.Ed. internship is better than the female student-teachers.

3. To find out the mean scores of attitudes of male and female student-teachers towards the confidence and knowledge of using software features of computer during B.Ed. internship.

H_A3: There is significant difference in the mean scores of attitudes of male and female student-teachers towards the confidence and knowledge of using software features of computer during B.Ed. internship.

TABLE-3: *'t' VALUE FOR THE CONFIDENCE AND KNOWLEDGE OF USING SOFTWARE FEATURES OF COMPUTER DURING B.ED. INTERNSHIP*

Sl. No.	Category	N	M	SD	df	't' value	Level of significance at 0.01 level (2.58)
1	Male	242	10.5	4.1	651	3.03	Significant
2	Female	411	9.5	4.3			

INTERPRETATION

For the mean difference of scores of attitudes of male and female student-teachers towards the confidence and knowledge of using software features of computer during B.Ed. internship, the 't' value found to be 3.03, which is significant at 0.01 level when the df is equal to 651.

Therefore, the constructed hypothesis, "There is significant difference in the mean scores of attitudes of male and female student-teachers towards the confidence and knowledge of using software features of computer during B.Ed. internship" is retained. And, the mean value of attitude of male and female student-teachers is 10.5 and 9.5 respectively. This indicates that the attitude of male student-teachers towards the confidence and knowledge of using software features of computer during B.Ed. internship is better than the female student-teachers.

4. To find out the mean scores of attitudes of male and female student-teachers towards the confidence and knowledge of using system approach of computer

during B.Ed. internship.

$H_0$4: There is no significant difference in the mean scores of attitudes of male and female student-teachers towards the confidence and knowledge of using system approach of computer during B.Ed. internship.

TABLE-4: *'t' VALUE FOR THE CONFIDENCE AND KNOWLEDGE OF USING SYSTEM APPROACH OF COMPUTER DURING B.ED. INTERNSHIP*

Sl. No.	Category	N	M	SD	df	't' value	Level of significance at 0.01 level (2.58)
1	Male	242	8.1	3.05	651	0.9	Not Significant
2	Female	411	7.9	3.2			

INTERPRETATION

For the mean difference of scores of attitudes of male and female student-teachers towards the confidence and knowledge of using system approach of computer during B.Ed. internship, the 't' value found to be 0.9, which is not significant at 0.01 level when the df is equal to 651.

Therefore, the constructed hypothesis, "There is no significant difference in the mean scores of attitudes of male and female student-teachers towards the confidence and knowledge of using system approach of computer during B.Ed. internship" is retained. And, the mean value of attitude of male and female student-teachers is 8.1 and 7.9 respectively. This indicates that the attitude of male student-teachers towards the confidence and knowledge of using system approach of computer during B.Ed. internship is a little better than the female student-teachers.

5. To find out the mean scores of attitudes of male and female student-teachers towards the confidence and knowledge of using strategies and methods of computer during B.Ed. internship.

$H_0$5: There is no significant difference in the mean scores of attitudes of male and female student-teachers towards the confidence and knowledge of using strategies and methods of computer during B.Ed. internship.

TABLE-5: *'t' VALUE FOR THE CONFIDENCE AND KNOWLEDGE OF USING STRATEGIES AND METHODS OF COMPUTER DURING B.ED. INTERNSHIP*

Sl. No.	Category	N	M	SD	df	't' value	Level of significance at 0.01 level (2.58)
1	Female	242	5.7	2.08	651	1.4	Not Significant
2	Male	411	5.5	2.3			

INTERPRETATION

For the mean difference of scores of attitudes of male and female student-teachers towards the confidence and knowledge of using strategies and methods of computer during B.Ed. internship, the 't' value found to be 1.4, which is not significant at 0.01 level when the df is equal to 651.

Therefore, the constructed hypothesis, "There is no significant difference in the mean scores of attitudes of male and female student-teachers towards the confidence and knowledge of using strategies and methods of computer during B.Ed. internship" is retained. And, the mean value of attitude of male and female student-teachers is 5.7 and 5.5 respectively. This indicates that the attitude of male student-teachers towards the confidence and knowledge of using strategies and methods of computer during B.Ed. internship is almost similar with the female student-teachers.

6.0 MAJOR FINDINGS

The major findings of the study are as follows:

a) The attitude of male student-teachers with a mean value of 41.9, towards the confidence and knowledge of using technology during B.Ed. internship on the whole is better than the female student-teachers, with a mean value of 39.7.

b) The attitude of male student-teachers towards the confidence and knowledge of using hardware features of computer during B.Ed. internship is better with a mean value of 17.4 than the female student-teachers, with a mean value of 16.6.

c) The attitude of male student-teachers with a mean value of 10.5, towards the confidence and knowledge of using software features of computer during B.Ed. internship is better than the female student-teachers, with a mean value of 9.5.

d) The attitude of male student-teachers towards the confidence and knowledge of using system approach of computer during B.Ed. internship is a little better with a mean value of 8.1 than the female student-teachers, with a mean value of 7.9.

e) The attitude of male student-teachers towards the confidence and knowledge of using strategies and methods of computer during B.Ed. internship is almost similar with the female student-teachers, with a mean value of 5.7 and 5.5 respectively.

7.0 SUGGESTIONS

A collaborative, low-stakes learning environment can be designed by shifting toward project-based learning where roles rotate, ensuring female students don't default to non-technical tasks. Technology can be integrated into real-world problem-solving that appeals to diverse interests. Also, there should be provision for foundational tech workshops, which will allow student-teachers with lower initial confidence to familiarize themselves with hardware, software, or digital platforms. Tech-proficient peers can be paired with those looking to build their skills. Peer mentoring creates a safe space for asking questions and sharing strategies for overcoming tech-related difficulties. The institutions should also regularly survey student-teachers not just on their marks, but on their self-efficacy. Often, female students perform just as well as

male students objectively but score themselves lower on confidence. Recognizing this gap allows for targeted psychological encouragement rather than just remedial tutoring.

8.0 CONCLUSION

In the study, it is found that the mean value of male student-teachers on confidence and knowledge regarding using technology by the student-teachers during B.Ed. internship is better than the female student-teachers. The confidence gap is not about capability; it's about familiarity, tech anxiety, or varying levels of prior experience. Prior to internship, gender-responsive ICT workshops can be organised. The goal shouldn't just be teaching the software, but building psychological confidence through peer-led monitoring or low-stakes practice environments. The real bottleneck is no longer student willingness or gender disparities, but rather the varying digital resources available at different internship host schools. B.Ed. programs should train student-teachers not only to use technology during internship but also on to how troubleshoot tech failures on the fly during their practice teaching.

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