



ATTITUDE OF B.ED. STUDENT TEACHERS TOWARDS ICT: A STUDY OF DIETS, MIZORAM

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Abstract: The fundamental objective of this study is to determine the attitude of B.Ed. student teachers of DIETs towards ICT. To this end, it is questioned whether “the attitudes of B.Ed. student teachers towards ICT differ according to the variables including their gender, educational qualification, stream of education and Institute”. The study group of the research consists of 61 B.Ed. student teachers from District Institute of Education and Training (DIET) of Mizoram who were selected using survey method. In order to evaluate B.Ed. student teachers’ attitudes towards ICT, 5-point Likert-type attitude scale developed by J. Samuel Gnanamuthu and R. Krishna Kumar (2019) was used. For the analysis of the data, t-test was used. The research findings shows majority of B.Ed. student teachers have positive attitude towards ICT. No significant difference occurred in the attitude of B.Ed. student teachers in relation to the gender factor, educational qualification, stream of education and Institutes.

Keywords: Attitude, B.Ed. student teachers, ICT.

Attitude towards ICT

One could define attitude as a certain human mental state. It is a person's attitude or sentiment toward someone else, a task, a concept, an item, or something else. A person's behavior and performance are encouraged and motivated by it. The term "attitude" has also been used to refer to the taught propensity to judge people, things, or events in a particular light. Attitudes can be either positive or negative, but they can occasionally ambiguous as well. One could feel conflicted about something or someone, for instance. An individual's attitude can range from being incredibly optimistic to being incredibly negative.

Numerous psychologists have used the word "attitude" in a variety of contexts, and there are several accepted definitions of the term. One of the areas of focus in education is attitude. Leading authority in the field of attitude research, Allport (1967), defined the concept as "a mental and neural state of readiness, organized through experience, exerting a directive or dynamic influence upon the individual's response to all objects and situations with which it is related."

The tendency to react favorably or unfavorably toward a specific class of stimuli, such as a national or ethnic group, a custom, or an institution, is how Anastasi (1968) defines attitude.

Attitude towards ICT refers to an individual's or a group's overall outlook, feelings, beliefs, and predisposition concerning Information and Communication Technology (ICT). It encompasses the general attitude people have towards the use, adoption, and impact of technology in various aspects of life.

Positive attitude towards ICT often leads to enthusiastic engagement with technology, embracing new digital tools and solutions, and recognizing the potential benefits it brings to work, education, communication, and entertainment. On the other hand, negative attitudes may result in resistance to technological change, concerns about privacy and security, or a preference for traditional methods over digital alternatives.


Attitude towards ICT can be shaped by various factors, including personal experiences with technology, cultural influences, societal norms, and media portrayals of technology. Additionally, an individual's level of digital literacy and exposure to ICT can also impact their attitude towards it.

Understanding attitudes towards ICT is essential for various stakeholders, including policymakers, educators, and technology developers. It helps them tailor their strategies and communication to address concerns and build on the positive aspects of technology adoption. Furthermore, fostering a positive attitude towards ICT can contribute to a more inclusive and equitable digital society by ensuring that everyone has access to and benefits from technological advancements.

Need and Significance of ICT Integration in Teachers' Education

The integration of Information and Communication Technology (ICT) in teachers' education holds significant importance and benefits for both educators and students. Here are some key reasons why ICT integration is needed and its significance in teachers' education:

Enhancing Teaching Methods: ICT provides various tools, software, and platforms that can enhance traditional teaching methods and make them more interactive and engaging. Teachers can use multimedia resources, simulations, and educational software to make complex concepts easier to understand and more accessible to students.

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- **Improving Classroom Management:** ICT tools can assist teachers in managing their classrooms more efficiently. They can use technology for attendance tracking, grading, lesson planning, and communication with students and parents, streamlining administrative tasks and saving time.
 - **Enabling Personalized Learning:** With ICT integration, teachers can tailor instruction to meet individual student needs and learning styles. Adaptive learning software and online resources allow students to learn at their own pace, ensuring a more personalized learning experience.
 - **Promoting Collaboration and Communication:** ICT facilitates communication and collaboration among teachers, students, and parents. Online platforms, discussion forums, and video conferencing tools enable seamless communication and foster a sense of community in the learning environment.
 - **Access to a Wealth of Resources:** Through ICT integration, teachers gain access to a vast repository of educational resources and materials available online. This includes e-books, research papers, educational videos, and interactive learning modules, enriching the teaching-learning process.
 - **Lifelong Learning for Educators:** Integrating ICT in teachers' education encourages continuous professional development. Teachers can engage in online courses, webinars, and virtual workshops to enhance their knowledge and stay up-to-date with the latest teaching methodologies and educational trends.
 - **Preparing Students for the Digital Age:** In a rapidly advancing digital world, students need to be familiar with technology and digital tools. By integrating ICT in education, teachers can equip students with essential digital literacy skills, ensuring they are prepared for future careers and challenges.
 - **Facilitating Distance Learning:** ICT integration enables teachers to deliver education beyond the traditional classroom setting. During situations like the COVID-19 pandemic, online learning became crucial in maintaining continuity in education.

- **Data-Driven Decision Making:** ICT tools can collect and analyze data on student performance, enabling teachers to make data-driven decisions to improve their teaching strategies and interventions for struggling students.
- **Increasing Motivation and Engagement:** The use of technology in the classroom can make learning more enjoyable and interactive, increasing student motivation and engagement in the learning process.

ICT integration in teachers' education is essential as it empowers educators with modern teaching tools, improves learning outcomes for students, and prepares both teachers and students for the challenges and opportunities presented by the digital age. It transforms the educational landscape by creating more dynamic, inclusive, and student-centered learning environments.

Rationale of the study

The rationale for understanding the attitude of B.Ed. student teachers towards ICT is crucial for several reasons:

- **Effective Integration:** B.Ed. student teachers will eventually become educators who will be responsible for integrating ICT into their teaching practices. Understanding their attitudes towards ICT will help teacher education programs tailor their training to equip future teachers with the necessary knowledge and skills to effectively use technology in the classroom.
- **Impact on Teaching Practices:** Attitudes towards ICT can significantly influence how B.Ed. student teachers use technology in their teaching. Positive attitudes can lead to innovative and effective uses of ICT to enhance learning, while negative attitudes may result in underutilization or misuse of technology.
- **Student Engagement and Learning Outcomes:** B.Ed. student teachers' attitudes towards ICT can influence their willingness to explore technology-based teaching methods that can enhance student engagement and improve learning outcomes. Positive attitudes are more likely to lead to creative and interactive approaches to teaching.
- **Overcoming Barriers:** Understanding B.Ed. student teachers' attitudes can shed light on potential barriers or challenges they may face in adopting and integrating ICT. Addressing these challenges early on can help ensure a smoother transition towards using technology effectively in the classroom.
- **Professional Development Needs:** B.Ed. student teachers' attitudes towards ICT can inform the design of professional development programs for in-service teachers. Identifying areas where future teachers need support can lead to targeted training and continuous improvement in technology integration.
- **Digital Citizenship:** B.Ed. student teachers' attitudes towards ICT can also impact their understanding of digital citizenship, online safety, and responsible use of technology. Emphasizing positive attitudes towards technology can foster a sense of responsibility in their future roles as educators and digital role models for students.
- **Preparation for the Future:** As the world becomes increasingly reliant on technology, B.Ed. student teachers need to be prepared to meet the demands of a technologically advanced society. Understanding their attitudes towards ICT can help ensure that they are adequately equipped to prepare their students for the challenges of the digital age.
- **Curriculum Design:** B.Ed. student teachers' attitudes can influence how they incorporate ICT into lesson planning and curriculum design. Positive attitudes may lead to the inclusion of technology-rich activities and resources, enhancing the overall learning experience.

Understanding the attitudes of B.Ed. student teachers towards ICT is crucial for preparing them to be effective educators in the digital era. Positive attitudes towards technology can lead to better technology integration, improved student learning experiences, and a more successful transition towards technology-enhanced teaching practices. Teacher education programs can use this information to tailor their curriculum and training to support future teachers in becoming confident and proficient in using ICT for educational purposes.

Research Questions

In order to justify the research aims and objectives, the study seeks to answer the following research questions:

1. What is the level of attitude of B.Ed. student teachers towards Information and Communication Technology (ICT)?
2. How does the attitude of B.Ed. student teachers in DIETs towards ICT vary in relation to their gender?
3. What are the differences in the attitude of B.Ed. student teachers in DIETs towards ICT based on their Educational Qualification?
4. How does the attitude of B.Ed. student teachers in DIETs towards ICT differ based on their stream of education?
5. What are the differences in the attitude of B.Ed. student teachers in DIETs towards ICT based on Institutes?

These research questions helped to investigate the attitudes of B.Ed. student teachers towards ICT and explore any potential differences related to gender, educational qualification, and stream of education and Institutes. Researchers can use these questions as a basis for designing surveys, conducting interviews, or gathering data to analyze the attitudes of B.Ed. students in DIETs towards ICT.

Statement of the Problem

The present study is entitled as follows:

“Attitude of B.Ed. student teachers towards ICT: A Study of DIET s, Mizoram.

Objectives of the Study

The present study is undertaken with the following objectives:

1. To find out the level of attitude of B.Ed. student teachers of DIETs towards ICT.
2. To compare the attitude of B.Ed. student teachers in DIETs towards ICT in relation to their gender.
3. To compare the attitude of B.Ed. student teachers in DIETs towards ICT in relation to their Educational Qualification.
4. To compare the attitude of B.Ed. student teachers in DIETs towards ICT in relation to their stream of education.
5. To compare the attitude of B.Ed. student teachers in DIETs towards ICT in relation to Institutes

Hypotheses of the Study

1. There is no significant difference between attitude of B.Ed. student teachers in relation to gender.
2. There is no significant difference between attitude of B.Ed. student teachers in relation to their Educational Qualification.
3. There is no significant difference between attitude of B.Ed. student teachers in relation to their stream of education.
4. There is no significant difference between attitude of B.Ed. student teachers in relation to Institute

Variables Studied

Since the study envisages the study of the influence of variables on attitude scores, a brief description of the variables included in the study is unavoidable.

1. **Gender:** Male and female of B.Ed. student teachers of DIETs were included in the study to find out whether there is any significant difference between men and women student teachers in their attitudes toward ICT.
2. **Educational Qualification:** The qualification of serving and B.Ed. student teachers of elementary schools as graduates and post-graduates were considered for studying its influence on attitude of student teachers toward ICT.

3. **Stream of education:** Subject paper viz. Science and arts subjects taken by B.Ed. student teachers were included in the study to find out whether there is any significant difference between arts and science student teachers in their attitudes toward ICT.
4. **Institute:** The educational Institute which offers B.Ed. course.

Methodology

Normative survey method was used in the present study as it is the appropriate method for the purpose.

There are 2 DIETs which offer B.Ed. course in Mizoram, all the students who are studying the second year (B.Ed.) are considered in view to assess accurate perception.

In the present study, the researcher used census survey technique for the selection of the sample. All the 61 students which were present at the time of administering the test are essential to get complete demographic profile of the population.

Tools of the Study

For the purpose of the present investigation, an attitude scale was used measure the attitude towards ICT of B.Ed. student teachers. The tool used “B.Ed. trainees’ Attitude towards ICT” was developed and standardised by J. Samuel Gnanamuthu and R. Krishna Kumar (2019), it consists of 20 statements. The 20 statements comprise of the dimensions avoidance/acceptance with 5 statements, classroom learning with 8 statements and negative impact on learning with 7 statements. The tool consists of five-point scale with a maximum score of 100 and a minimum score of 20.

Major findings:

- **Levels of attitude towards ICT**
 - The mean scores of male and female participants on the attitude scale are quite close, with male participants having a slightly higher mean score (68.82) compared to female participants (68.54). The total mean score for all participants (both male and female combined) on the attitude scale is 68.69. This value represents the average attitude score across all participants was positive.
- **Hypothesis 1: There is no significant difference between attitude of B.Ed. student teachers in relation to gender.**

Table 1: Attitude of B.Ed. Student Teachers towards ICT with regards to gender

Gender	N	Mean	Std. Deviation	‘t’	p- value	Remarks @ 5% level of confidence
Male	34	68.823	7.929	0.171	0.865	NS
Female	31	68.548	4.808			

Table 1 shows that the t-value is 0.171, this value represents the size of the difference between the means of the male and female groups relative to the variation within each group. A t-value close to zero indicates that the difference between the means is relatively small compared to the variability within each group.

The p-value is 0.865, the p-value represents the probability of observing the data, or more extreme results, under the assumption that the null hypothesis is true and accepted. In this context, the null hypothesis typically states that there is no significant difference between the means of the male and female groups. With a p-value of 0.865, it indicates that there is no statistically significant difference between the means of the male and female groups. In other words, the observed difference in means (0.171) is very small and could have occurred due to random variation in the data.

Overall, based on these results, we can conclude that there is no significant difference in the attitudes (or whatever variable was being measured) between males and females in this study.

- **Hypothesis 2: There is no significant difference between attitude of B.Ed. student teachers in relation to their Educational Qualification**

Table 2: Attitude of B.Ed. Student Teachers towards ICT with regards to Educational Qualification

Gender	N	Mean	Std. Deviation	't'	p- value	Remarks @ 5% level of confidence
Post Graduate	28	69.107	5.645	.455	.651	NS
Graduate	37	68.378	7.266			

Table 2 shows that the t-value is 0.455 and a t-value close to zero indicates that the difference between the means is relatively small compared to the variability within each group. The p-value is 0.651 and with a p-value of 0.651, it indicates that there is no statistically significant difference between the means of the postgraduate and graduate groups. In other words, the observed difference in means (0.455) is very small and could have occurred due to random variation in the data.

Overall, based on these results, we can conclude that there is no significant difference in the variable being measured between postgraduate and graduate participants in this study.

- **Hypothesis 3: There is no significant difference between attitude of B.Ed. student teachers in relation to their stream of education**

Table 3: Attitude of B.Ed. Student Teachers towards ICT with regards to Stream of education

Stream of educations	N	Mean	Std. Deviation	't'	p- value	Remarks @ 5% level of confidence
Science	20	68.8000	5.88128	.087	.926	NS
Arts	45	68.6444	6.92871			

Table No. 3 shows that t-value is 0.087 and p-value is 0.926. With a p-value of 0.931, it indicates that there is no statistically significant difference between the means of the science and arts student groups. In other words, the observed difference in means (0.087) is very small and could have occurred due to random variation in the data.

Overall, based on these results, we can conclude that there is no significant difference in the variable being measured between science and arts students in this study.

- **Hypothesis 4: There is no significant difference between attitude of B.Ed. student teachers in relation to their stream of education**

Table 3: Attitude of B.Ed. Student Teachers towards ICT with regards to Stream of education

Stream of educations	N	Mean	Std. Deviation	't'	p- value	Remarks @ 5% level of confidence
DIET Lunglei	33	68.8788	5.79740	.229	.819	NS
DIET Aizawl	32	68.5000	7.38787			

Table No. 4 shows that the t-value is 0.229 and the p-value is 0.819. The p-value represents the probability of observing the data, or more extreme results, under the assumption that the null hypothesis is true. In this context, the null hypothesis typically states that there is no significant difference between the means of the DIET Lunglei and DIET Aizawl groups. With a p-value of 0.819, it indicates that there is no statistically significant difference between the means of the DIET Lunglei and DIET Aizawl groups. In other words, the observed difference in means (0.229) is quite small and could have occurred due to random variation in the data.

Overall, based on these results, we can conclude that there is no significant difference in the variable being measured between students from DIET Lunglei and students from DIET Aizawl in this study.

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