



Attitude of the Middle School Teachers towards the Technology Using in the Classroom

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Teachers who helped to enhance education were powerful and influential individuals. Since information technology was introduced into the classroom, educators have been inspired and encouraged to investigate new areas of growth in light of its most recent advancements at different stages. Accordingly, attitude toward technology in this study is a more or less consistent arrangement of ideas, sentiments, and preconceptions that are shaped by a particular kind of experience and feel prepared to be appropriately addressed in the areas like ICT in the classroom, the role of technology in education, and the professional development of teachers with regard to the technology they use in their instruction. The survey method is used in this investigation. For the purpose of gathering data, the random sampling approach is utilized. 100 teachers participated in the current study, with 48 male and 52 female teachers providing the data. Under the supervision of the supervisor, the researcher created the study's instrument for within the domains of ICT in the classroom (15 items), the role of technology in education (13 items), and professional development (17 items), there are 50 items that make up attitudes about teaching using technology. SPSS is used to analyze the data. Result revealed that there is significant mean difference between the gender, qualification of the teachers and marital status of the teachers. It is recommended that the teachers should be given training in the latest technology ever year, so that they can update in using the ICT in the classroom which will enable their role in using technology in the classroom which will improve their professional development and create the positive attitude towards using the technology in the classroom.

Keywords: *Attitude towards Technology, Teachers, ICT in the Classroom, Professional Development.*



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1. Introduction

Society's biggest problem is dealing with the technological know-how and knowledge required to locate, use, and assess information. Teachers who helped to enhance education were powerful and influential individuals. The way a teacher acts, their personality, and the way the classroom is set up and run all affect how effective they are. The quick development of information and communication technology has had a significant impact on the teaching and learning process. Since information technology was introduced into the classroom, educators have been inspired and encouraged to investigate new areas of growth in light of its most recent advancements at different stages.

The inclination or propensity to react favorably or unfavourably to a certain concept, item, person, or circumstance is known as attitude. An individual's attitude affects their decision-making process as well as how they react to rewards, incentives, and difficulties. An attitude is "a psychological tendency that is expressed by evaluating a particular entity, with some degree of favor or disfavour," according to [Eagly and Chaiken \(1998\)](#). According to research, educators' attitudes regarding technology use are a major factor in determining how well technology will be used in classrooms ([Albirini, 2006](#)), and they are also seen to be a significant predictor of technology use in educational settings. Given the demands of education in many nations throughout the world, integrating information technology into teaching and learning is becoming practically required. Because of efficient ICT utilization in the classroom, teachers now require greater professional development. Accordingly, attitude toward technology in this study is a more or less consistent arrangement of ideas, sentiments, and preconceptions that are shaped by a particular kind of experience and feel prepared to be appropriately addressed in the areas like ICT in the classroom, the role of technology in education, and the professional development of teachers with regard to the technology they use in their instruction.

2. Need and Importance of the Study

Information technology has assumed a significant role in the life of every individual. Organizations in developing countries are utilizing information technology, including immersive

multimedia, computer conferencing, and the internet, to offer guidance. It is imperative to advance the understanding of information technology among both students and educators throughout various educational tiers. Integrating technical advancements into the classroom is essential to align with the technological transformation in the educational systems of emerging countries. It is essential to cultivate positive attitudes towards technology among secondary school teachers to enable them to address challenges and adapt to societal changes.

The Ministry of Education in India believes that the integration of ICT in classrooms will render education more engaging, scientifically successful, and comprehensible. Over the past 15 years, the Government of India has invested a substantial sum to include ICT in educational institutions. The Indian government proposed various initiatives to establish ICT facilities in all government-supported educational institutions, prioritizing those in backward areas and serving vulnerable populations ([MHRD, 2016](#)). India spent significantly to provide teachers with opportunities to enhance their knowledge and skills in utilizing ICT tools in classrooms ([IT for Change, 2018](#)). Technology serves as effective instructional tools; for instance, radio and television not only enhance the engagement of the teaching and learning process but also promote greater retention of knowledge. A technology-driven approach to education offers diverse and interesting tools, including educational movies, simulations, data storage, database use, mind mapping, guided discovery, brainstorming, music, and the World Wide Web, which will enrich and intensify the learning experience.

3. Review of Related Literature

Researchers Ericson [Alieto et al. \(2024\)](#) conducted a study that investigated the perspectives of educators regarding online teaching, their level of technological expertise, and their access to technology. The study placed a particular emphasis on analyzing the potential gender differences that may exist. This research makes use of a quantitative-descriptive-correlational research design, and it investigates the complex relationships that exist between these variables in extensive detail. An examination of the attitudes that teachers have toward online instruction, an assessment of their level of

technological competence, and a determination of the extent to which they have access to technology are the primary goals of this investigation. As a whole, the findings indicate that educators have a disposition that is moderately favorable toward online teaching, which indicates that they are eager to embrace this method of instruction with enthusiasm. In addition to this, these educators exhibit a notable level of technological expertise, which demonstrates their competency in utilizing technology for the purposes of instruction. The majority of educators report encountering minimal obstacles in terms of technological accessibility; however, science educators report having relatively restricted access to the technology. According to the findings of a gender-based analysis of the data, there seem to be no significant differences between male and female educators in terms of attitudes, technological proficiency, or access. This finding lends credence to the assertion that gender has a negligible impact on the factors that shape teachers' perspectives regarding online teaching and their level of technological proficientness. According to the findings of the study, there is a significant positive correlation between the attitudes of teachers toward online teaching and their level of technological competence, as well as their access to technology. The implication of this is that teachers who are equipped with improved technological skills and access to more resources are more likely to have positive attitudes toward online instruction.

Monika Bajaj (2023) is conducting a study with the objective of determining the attitudes of teachers toward information technology in a selection of government and private schools located in the Jammu district that are used for secondary education. In the Jammu district, the data was collected through a random sampling of one hundred secondary school teachers from five private schools and five government schools. An evaluation of the teacher's perspective on information technology was carried out with the help of the Attitude Scale towards Information Technology for Teachers (ASTITT), which was developed by **Nasrin and Islahi (2012)**. The data was analyzed using statistical methods such as the mean, standard deviation, and t-test. It was found that teachers in both public and private schools have a favorable attitude toward information technology, as indicated by the statistical findings.

Regarding information technology, however, it was discovered that teachers in private schools have a significantly more positive attitude than teachers in public schools. According to the findings of the study, there is no discernible difference between the perspectives of male and female secondary school teachers with regard to information technology. This was one of the findings.

It is possible for teachers to improve the quality of information and communication technology (ICT) in schools by adopting a more positive attitude, and the technological competence of teachers is a necessary prerequisite for doing so. At the senior secondary level schools in the Saharanpur district, **Pramod Singh Chauhan and Poonam Sharma (2023)** intend to conduct a study with the purpose of evaluating the attitudes of teachers of information and communication technology (ICT) teaching. A descriptive survey research design was utilized for the conducting of the study. In the current study, sixty educators from a select group of schools offered their participation. In order to administer the study, the researcher developed a questionnaire that inquired about respondents' preferences regarding information and communication technology (ICT) as well as their demographic profiling. Educators from a variety of senior secondary schools in the Uttar Pradesh Board were selected at random to participate in the study. For the purpose of evaluating four null hypotheses at the 0.05 level of significance, the statistical methods of mean, standard deviation, t-test, and correlation analysis were considered. The results indicate that there is a significant positive connection between the attitudes that teachers have towards information and communication technology.

4. Methodology

The study's survey approach is used with teachers who work in Tamil Nadu State Government schools. The information was gathered from the instructors of the sixth through eighth grade classes in every topic. The survey method is used in this investigation. For the purpose of gathering data, the random sampling approach is utilized. 100 teachers participated in the current study, with 48 male and 52 female teachers providing the data. Under the supervision of the supervisor, the researcher created the

study's instrument for within the domains of ICT in the classroom (15 items), the role of technology in education (13 items), and professional development (17 items), there are 50 items that make up attitudes about teaching using technology. SPSS is used to analyze the data. Differential analysis was conducted for the study based on the teachers' marital status, qualifications, and gender.

5. Research Questions

- Is there is any significant mean difference between the male and female teachers in the dimensions like ICT in the classroom, role of technology in education, professional development and overall attitude towards teaching through technology?
- Is there is any significant mean difference between qualification of the teachers like B.Sc/BA with B.Ed and M.Sc/MA with B.Ed in the dimensions like ICT in the classroom,

role of technology in Education, professional development and overall attitude towards teaching through technology?

- Is there is any significant mean difference between the marital status of the teachers namely married and unmarried teachers in the dimensions like ICT in the classroom, role of technology in Education, professional development and overall attitude towards teaching through technology?

6. Answer to the Research Questions

- Is there is any significant mean difference between the male and female teachers in the dimensions like ICT in the classroom, role of technology in education, professional development and overall attitude towards teaching through technology?

Dimension of the Variable	Gender				't' value	Level of Significance
	Male Teachers (N=48)		Female Teachers (N=52)			
	Mean	S.D	Mean	S.D		
ICT in the classroom	31.40	10.874	37.62	3.774	3.880	P<0.001
Role of Technology in Education	32.71	14.024	43.81	5.824	5.240	P<0.001
Professional Development	47.29	11.936	57.98	14.441	4.046	P<0.001
Attitude Towards Teaching Through Technology	111.40	21.666	139.40	15.220	7.526	P<0.001

Based on the data presented in the table above, it can be deduced that female educators do a better job than their male counterparts when it comes to the utilization of information and communication technology (ICT) in the classroom, the role of technology in education, professional development, and general attitude toward teaching through technology. The fact that they are significant at the 1% level is also easily discernible.

- Is there is any significant mean difference between qualification of the teachers like B.Sc/BA with B.Ed and M.Sc/MA with B.Ed in the dimensions like ICT in the classroom, role of technology in Education, professional development and overall attitude towards teaching through technology?

Dimension of the Variable	Qualification of the Teachers				't' value	Level of Significance
	B.Sc/B.A with B.Ed (N=63)		M.Sc/MA with B.Ed (N=37)			
	Mean	S.D	Mean	S.D		
ICT in the classroom	32.86	10.001	37.65	3.773	3.412	P<0.001
Role of Technology in Education	34.97	13.141	44.46	5.876	4.952	P<0.001
Professional Development	48.65	12.093	60.00	15.013	4.138	P<0.001
Attitude Towards Teaching Through Technology	116.48	22.101	142.11	14.776	6.937	P<0.001

The aforementioned table indicates that PG trained teachers exhibit superior utilization of ICT in the classroom, a more favourable perception of technology's role in education, enhanced professional development, and a more positive attitude towards teaching using technology compared to UG certified teachers. They are also demonstrably important at the 1% level.

- Is there is any significant mean difference between the marital status of the teachers namely married and unmarried teachers in the dimensions like ICT in the classroom, role of technology in Education, professional development and overall attitude towards teaching through technology?

Dimension of the Variable	Marital Status of the Teachers				't' value	Level of Significance
	Married Teachers (N=63)		Unmarried Teachers (N=37)			
	Mean	S.D	Mean	S.D		
ICT in the classroom	33.20	10.070	37.17	3.776	2.816	P<0.001
Role of Technology in Education	35.83	13.507	43.19	6.108	3.736	P<0.001
Professional Development	52.02	15.260	54.33	12.407	0.824	P>0.005
Attitude Towards Teaching Through Technology	121.05	26.473	134.69	11.969	3.532	P<0.001

The aforementioned table suggests that single instructors are more adept than married teachers at using ICT in the classroom, understanding the significance of technology in education, and having a more positive attitude toward teaching using technology in general. At the 1% level, it is also clear that they are important. Furthermore, it is discovered that married and single instructors are similar when it comes to professional development.

7. Conclusion

It is concluded that in this present digital world the attitude of teachers towards technology

using in their teaching is more needed. The younger generation will be highly motivated in learning while teacher is using the technology as

one of the important aids in teaching and learning process. It is also recommended that the teachers should be given training in the latest technology ever year, so that they can update in using the ict in the classroom which will enable their role in using technology in the classroom which will improve their professional development and create the positive attitude towards using the technology in the classroom

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