IJCRT.ORG ISSN : 2320-2882

INTERNATIONAL JOURNAL OF CREATIVE RESEARCH THOUGHTS (IJCRT)

An International Open Access, Peer-reviewed, Refereed Journal

Attitude Towards It Usage Among High School Teachers: An Analysis Of Selected Variables

Dr. SURESHA H.S.
Faculty of Education, Government First Grade College, Hungund,
Bagalkot District, Karnataka State 587118

ABSTRACT

This study examines the attitudes of school teachers in Bengaluru City towards the use of Information Technology (IT) in teaching, with a focus on how selected background variables-namely sex, type of school management and locality-influence these attitudes. A stratified random sample of 120 teachers was drawn from various schools to ensure demographic representation. To find out the Secondary School Teachers' Attitude towards IT in Teaching, Attitude Scale towards Information Technology for Teachers (ASTITT-NI) developed by Nasrin and Fatima Islahi (2012) along with The personal information of teachers collected through personal data proforma. Data were collected using a structured questionnaire that measured dimensions such as perceived ease of use, perceived usefulness and actual usage of IT in classroom settings. Independent samples 't' test was applied with the help of SPSS Package and level of significance was fixed at 0.05 and 0.01 level of confidences. The analysis revealed significant differences based on sex, with female teachers generally demonstrating more positive attitudes toward IT integration compared to their male counterparts. The type of school management-government, private aided and private unaided-also significantly affected attitudes. Teachers from private unaided schools showed the highest levels of IT adoption and favorable attitudes, followed by those in aided and government schools. This trend is attributed to better infrastructure, training and institutional support in private schools. Locality was another influential variable. Teachers in urban schools reported greater confidence and more frequent use of IT tools, likely due to better access to technology and greater exposure to digital advancements. In contrast, teachers from semi-urban and rural areas reported less favorable attitudes, citing limited infrastructure and insufficient professional development opportunities as key barriers. The findings highlight the urgent need for targeted interventions to address disparities in IT usage among teachers. Efforts such as equitable distribution of resources, ongoing professional training and robust support systems-especially in government and rural schools-are essential to fostering positive attitudes towards IT and enhancing teaching effectiveness in the digital era.

Keywords : Information Technology, School Teachers, attitudes, educational technology

1. INTRODUCTION

Teachers are the cornerstone of the education system and play a vital role in shaping students' learning experiences. Their attitude toward Information Technology (IT) significantly influences the integration and effectiveness of technology in classrooms. A positive attitude reflects openness to innovation, readiness to adapt and willingness to enhance pedagogy using digital tools. In contrast, negative or indifferent attitudes can hinder the adoption of technology and reduce its potential benefits in the teaching-learning process (Sharma, 2019).

Information Technology offers dynamic tools and digital platforms that can make classroom teaching more interactive, personalized and engaging. Teachers equipped with IT competencies can foster critical thinking, creativity and collaboration while catering to diverse learning needs. In addition, IT can

broaden access to educational resources, facilitate global learning and improve digital literacy among students (Raja & Nagasubramani, 2018).

Multiple factors influence a teacher's attitude towards IT, such as access to training, institutional support and exposure to best practices. Studies have shown that regular professional development and technical assistance contribute significantly to teachers' confidence and positive outlook toward technology use (Kumar & Kumar, 2014). Teacher education programs must embed ICT training in pre-service and in-service curricula to prepare educators for the digital age (Kaur & Kler, 2013).

In today's knowledge-driven society, technology integration is no longer optional but essential. Teachers' acceptance and willingness to integrate ICT is critical for successful educational transformation. Therefore, understanding their attitudes is imperative to designing policies and interventions that ensure the effective use of IT in classrooms, especially in a diverse educational landscape like India.

2. NEED FOR THE STUDY

India is currently experiencing a paradigm shift in education due to the proliferation of Information and Communication Technology (ICT). The National Education Policy (NEP, 2020) highlights the pivotal role of ICT in modernizing education and stresses the importance of equipping teachers with necessary digital competencies. ICT not only enhances the quality of education but also makes learning more accessible, flexible and inclusive (MHRD, 2020).

Despite the widespread availability of ICT infrastructure in urban centers, disparities persist in access and usage across school types and geographical areas. Teachers in government and rural schools often face challenges such as limited training opportunities, inadequate resources and insufficient institutional support (Raman & Sharma, 2016). This leads to variations in teachers' attitudes and capacities to integrate ICT in teaching effectively.

Research has shown that teacher resistance to ICT is often rooted in a lack of confidence, inadequate exposure and absence of contextualized training (Bansal, 2017). Furthermore, if teachers perceive IT tools as irrelevant or incompatible with their pedagogical needs, they are less likely to use them in classrooms (Joshi & Chugh, 2009). Successful implementation of ICT thus depends not just on infrastructure but on the positive attitudes and readiness of teachers.

McCarthy (1998) and Rogers (1995) have emphasized that innovations in education succeed only when end-user attitudes are considered. In the Indian context, several IT initiatives have failed to produce expected outcomes due to neglect of teacher perspectives. Therefore, it is critical to assess teachers' current attitudes towards technology use, especially in secondary schools, where digital learning is becoming increasingly relevant.

Considering these aspects, the present study seeks to explore the attitudes of secondary school teachers in Bengaluru City towards IT usage in teaching. It investigates how variables such as gender, type of school management and school locality influence their attitudes. The findings of this study are expected to provide valuable insights for policymakers, administrators and teacher educators in developing context-specific strategies to enhance IT integration in Indian classrooms.

2. REVIEW OF RELATED LITERATURE

Understanding teachers' attitudes towards Information Technology (IT) is vital, as it influences how effectively technology is integrated into classrooms. Reviewing past research helps identify key patterns, influencing variables and areas that need further exploration, especially in the Indian educational context.

Studies Related to Attitude Towards IT Usage: Several Indian studies show that attitudes toward IT vary by demographic factors. Kumar and Sankar (2023) found that science students and those in government colleges in Andhra Pradesh had more positive ICT attitudes. Chauhan and Sharma (2023) reported a strong positive attitude among senior secondary teachers in Uttar Pradesh. Yadav (2022) noted that teachers in Pondicherry had a generally positive attitude regardless of school type or stream. In Karnataka, Gaonkar (2022) found no gender difference in ICT attitudes among high school teachers. Internationally, Kagyera et al. (2022) observed a positive attitude towards ICT in mathematics teaching among Ugandan student teachers. Undi and Hashim (2021) also found favorable attitudes among ESL teachers but highlighted barriers like lack of training and time.

Research Gap: While existing studies reveal a generally positive attitude towards IT usage, there is limited research focused specifically on in-service secondary school teachers in metropolitan cities like Bengaluru, considering variables such as gender, school type and locality. Moreover, most studies measure attitude but not how it translates into classroom practice. The present study aims to fill this gap by analyzing how these factors influence teachers' attitudes towards IT usage in Bengaluru schools.

3. STATEMENT OF THE PROBLEM

The research problem formulated for the present study is ***"Attitude Towards IT Usage among High School Teachers: An Analysis of Selected Variables."***

4. OBJECTIVES OF THE STUDY

The objectives of this study are as follows:

1. To assess the overall attitude of secondary school teachers towards the use of Information Technology (IT) in teaching.
2. To examine the differences in IT usage attitudes between male and female secondary school teachers.
3. To analyze the variations in attitudes among teachers working in government, private aided and private unaided schools.
4. To investigate the differences in IT usage attitudes between teachers from urban and rural localities.

5. RESEARCH HYPOTHESES

The following are the null hypotheses for the present study:

1. There is no significant difference in the secondary school male and female teachers' attitude towards Information Technology (IT) usage in Teaching
2. There is no significant difference in the attitude of secondary school teachers working in government and private aided schools towards IT Usage in Teaching.
3. There is no significant difference in the attitude of secondary school teachers working in private aided and private unaided schools towards IT Usage in Teaching.
4. There is no significant difference in the attitude of secondary school teachers working in government and private unaided schools towards IT Usage in Teaching.
5. There is no significant difference in the attitude of secondary school teachers working in urban and rural locality schools towards IT Usage in Teaching.

6. METHODOLOGY

Population : The population is consists of secondary school teachers working in Secondary Schools situated at Bengaluru Metro City, Karnataka, India.

Sample Size: A sample of 120 secondary school teachers working in six secondary schools followed by Karnataka State Syllabus would be drawn using simple random sampling technique. Data representation would be given to male and female teachers.

Tools of the Study

The research tool used for the study is as follows

1. To find out the Secondary School Teachers' Attitude towards IT in Teaching, Attitude Scale towards Information Technology for Teachers (ASTITT-NI) developed by Nasrin and Fatima Islahi (2012).
2. Personal Data: The personal information of teachers collected through personal data proforma.

Collection of Data : The data was collected by the researcher himself by personally visiting the secondary schools and administered the attitude scale towards Information Technology for Teachers (ASTITT) for secondary school teachers under normal conditions. The teachers have been told to respond to the items freely and frankly. The secondary school teachers included in the sample were told to furnish the details required from them along with personal proforma

Statistical Techniques : Independent samples 't' test was applied with the help of SPSS Package and level of significance was fixed at 0.05 and 0.01 level of confidences.

7. ANALYSIS AND INTERPRETATION OF DATA

Table-1: Independent samples 't' test results related to Attitude towards IT usage in teaching scores of secondary school teachers with regard to gender.

Gender	Sample	Mean	Std. Deviation	't' Value	Sig. level
Male	20	109.750	17.731	2.68**	(P=0.013)
Female	100	120.970	13.260		

**indicates significant at 0.01 level ('t' Table Value for N=120; df=118 is 2.63).

Table-1 inferred that variable, sample, mean, standard deviation, 't' value and significance level related to secondary school teachers' Attitude towards It Usage due to variations in the gender. The independent 't' value for Attitude towards It Usage of secondary school teachers is found to be 2.68 which is significant at 0.01 level of significance. This means 'there is a significant difference in the secondary school male and female teachers' attitude towards Information technology (IT) usage in Teaching.' However, the mean scores of female teachers (M=120.970) are found to be higher than the mean scores of male teachers (M=109.750). It is proved statistically that female teachers had more favourbale attitude towards IT usage in teaching when compared with male teachers. The comparison of mean scores of secondary school male and female teachers' attitude towards IT usage in teaching are depicted in Fig.1.

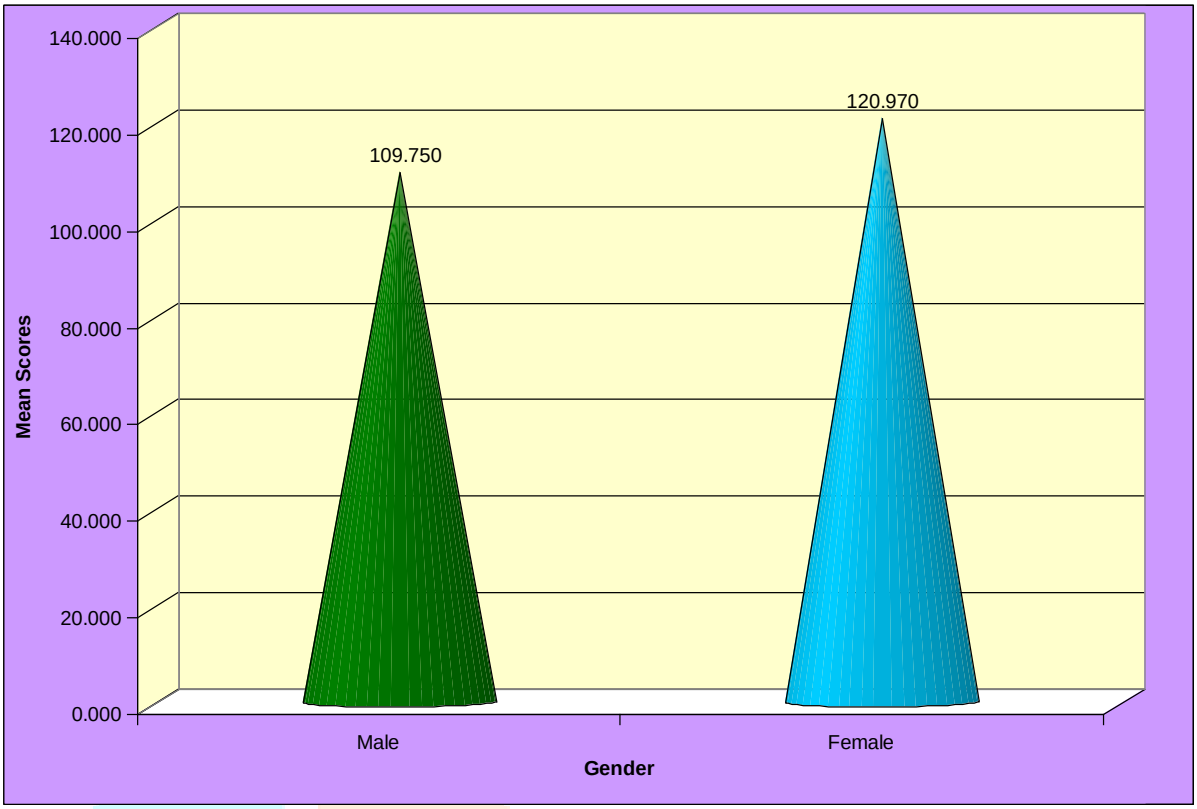

Fig.1: Comparison of mean scores between secondary school male and female teachers' attitude towards IT usage in teaching.

Table-2: Independent samples 't' test results related to Attitude towards IT usage in teaching scores of secondary school teachers with regard to type of management.

Type of Management	Sample	Mean	Std. Deviation	't' Value	Sig. level
Government	40	115.750	14.531	0.16^{NS}	(P=0.874)
Private Aided	40	115.200	16.450		
Private Aided	40	115.200	16.450	3.71**	(P=0.000)
Private Unaided	40	126.350	9.515		
Government	40	115.750	14.531	3.86**	(P=0.000)
Private Unaided	40	126.350	9.515		

**indicates significant at 0.01 level ('t' Table Value for N=80; df=78 is 2.64).

Table-2 inferred that variable, sample, mean, standard deviation, 't' value and significance level related to secondary school teachers' Attitude towards It Usage in teaching due to variations in their type of management.

- The independent 't' value for Attitude towards It Usage in Teaching of secondary school government and private aided teachers is found to be 0.16 which is not significant even at 0.05 level of significance. This means 'there is no significant difference in the attitude of secondary school teachers working in government and private aided schools towards IT usage in Teaching.' It is proved statistically that government and private aided teachers had similar attitude towards IT usage in teaching.
- The independent 't' value for Attitude towards It Usage in Teaching of secondary school private aided and private unaided teachers is found to be 3.71 which is significant at 0.01 level of significance. This means 'there is a significant difference in the attitude of secondary school teachings working in private aided and private unaided schools towards Information technology

usage in Teaching.' However, the mean scores of teachers working in private unaided schools (M=126.350) are found to be higher than the mean scores of teachers working in private aided schools (M=115.200). It is proved statistically that private unaided school teachers had more favourbale attitude towards IT usage in teaching when compared with private aided school teachers.

- The independent 't' value for Attitude towards It Usage in Teaching of secondary school government and private unaided teachers is found to be 3.86 which is significant at 0.01 level of significance. This means 'there is a significant difference in the attitude of secondary school teachings working in government and private unaided schools towards Information technology usage in Teaching.' However, the mean scores of teachers working in private unaided schools (M=126.350) are found to be higher than the mean scores of teachers working in government schools (M=115.750). It is proved statistically that private unaided school teachers had more favourbale attitude towards IT usage in teaching when compared with government school teachers. The comparison of mean scores of secondary school government, private aided and private unaided teachers' attitude towards IT usage in teaching are depicted in Fig.2.

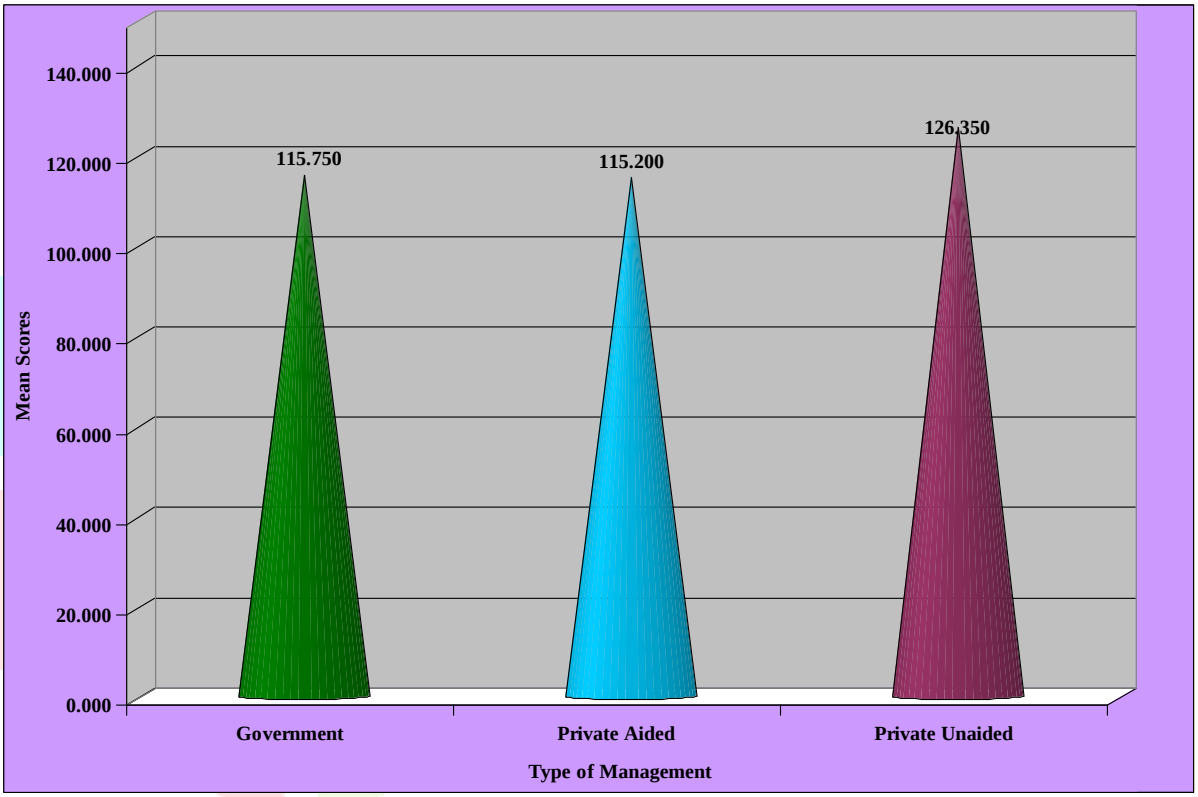

Fig.2: Comparison of mean scores among secondary school government, private aided and private unaided teachers' attitude towards IT usage in teaching.

Table-3: Independent samples 't' test results related to student-teachers' attitude towards IT usage in teaching scores with regard to locality.

Locality	Sample	Mean	Std. Deviation	't' Value	Sig. level
Urban	60	122.166	11.979	2.34*	(P=0.021)
Rural	60	116.033	16.408		

*indicates significant at 0.05 level ('t' Table Value for N=120; df=118 is 1.98).

Table-3 inferred that variable, sample, mean, standard deviation, 't' value and significance level related to secondary school teachers' Attitude towards It Usage due to variations in the locality. The independent 't' value for Attitude towards It Usage of secondary school urban and rural teachers is found to be 2.34 which is significant at 0.05 level of significance. This means 'there is a significant difference in the attitude of secondary school teachers working in urban and rural locality schools towards Information technology usage in Teaching.' However, the mean scores of urban teachers (M=122.166) are found to be higher than the mean scores of rural teachers (M=116.033). It is proved statistically that teachers working in urban schools had more favourbale attitude towards IT usage in teaching when compared with rural teachers. The comparison of mean scores of secondary school urban and rural teachers' attitude towards IT usage in teaching are depicted in Fig.3.

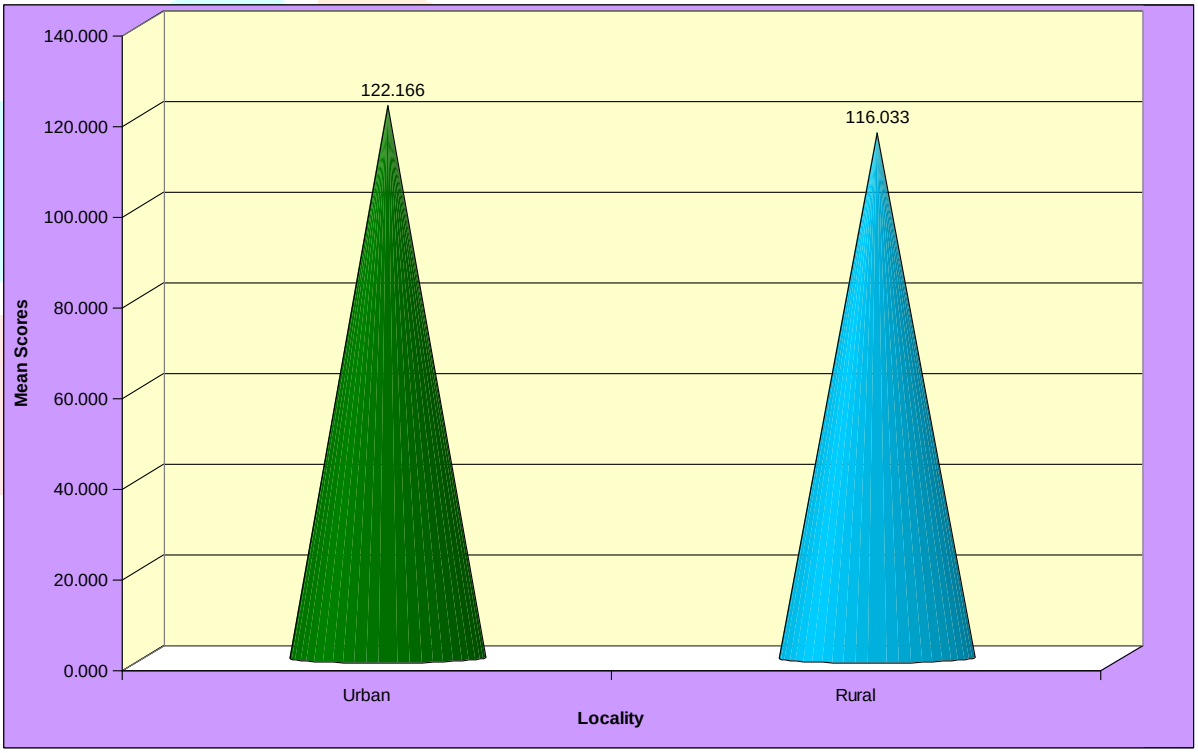

Fig.3: Comparison of mean scores between secondary school urban and rural teachers' attitude towards IT usage in teaching.

8. RESULTS

1. There was a significant difference in the secondary school male and female teachers' attitude towards Information Technology (IT) usage in Teaching ('t' =2.68 at 0.01 level).
2. There was no significant difference in the attitude of secondary school teachers working in government and private aided schools towards IT Usage in Teaching ('t' =0.16; Not Significant).
3. There was a significant difference in the attitude of secondary school teachers working in private aided and private unaided schools towards IT Usage in Teaching ('t' =3.71 at 0.01 level).
4. There was a significant difference in the attitude of secondary school teachers working in government and private unaided schools towards IT Usage in Teaching ('t' =3.86 at 0.01 level).
5. There was a significant difference in the attitude of secondary school teachers working in urban and rural schools towards IT Usage in Teaching ('t' =2.34 at 0.05 level).

9. CONCLUSION

The findings of this study provide valuable insights into the attitudes of secondary school teachers towards IT usage in teaching. It is evident that various factors such as gender, type of institution and teaching experience do play a role in shaping teachers' attitudes towards technology integration. However, the results also indicate that there are no universal patterns across all these factors. Therefore, a comprehensive approach to promoting IT usage in teaching is necessary.

In conclusion, educational institutions should design and implement targeted strategies that acknowledge the diversity of attitudes among teachers. Professional development programs should be modified to address the specific needs of different teacher groups, ensuring that gender, type of institution, teaching experience and qualifications are taken into account. By doing so, schools can create a more inclusive and effective learning environment where technology is seamlessly integrated to enhance teaching and learning outcomes. Ongoing research in this area is essential to continually refine these strategies and keep pace with the evolving landscape of educational technology.

10. EDUCATIONAL IMPLICATIONS

Here, the researcher made variable wise implications to develop attitude towards IT among teachers:

- **Gender Differences:** The finding that there is a significant difference in the attitude towards IT usage in teaching between male and female teachers suggests that gender-specific interventions may be beneficial. Schools and educational institutions could consider organizing workshops or training sessions that address the specific needs and concerns of both male and female teachers. This could help bridge the gender gap in IT adoption and utilization, ensuring that both genders are equally comfortable and competent in integrating technology into their teaching practices.
- **Type of Management:** The significant difference in attitude based on school type (government vs. private aided vs. private unaided) highlights the importance of understanding institutional contexts. Schools of different types might have varying access to resources, infrastructure and administrative support for technology integration. Educational policy makers and administrators should consider tailoring professional development and support initiatives based on the specific requirements of different school types to promote effective IT usage across the board.
- **Locality:** The lack of significant differences in attitude based on teaching experience and educational qualifications suggests that IT adoption might not necessarily correlate with these factors. Schools should focus on providing continuous professional development opportunities for teachers of all experience levels and qualifications. This will help ensure that teachers at various career stages are equally empowered to use technology effectively in their teaching practices.

It is also recommended by the researcher to develop positive attitude towards IT usage in teaching that proper orientation should be provided to improve school teachers to develop positive attitude towards using technology in teaching which basically leads way to their professional development.

On the basis of the above findings a few recommendations have been offered.

- Teachers must enhance their attitude towards technological tools for teaching more creatively, lively and to achieve the aims of teaching.
- Re-evaluate the teacher education programs to utilize more interactive, online technologies for effective teaching.
- Teachers must be aware of the changing needs and challenges in the classrooms of teaching i.e. Visit e-learning portals and review themselves with ICT applications.
- Online orientation program based on ICT can be provided to the Teachers to improve their competency level, job satisfaction and also professional development.

11. REFERENCES

1. Best, J.W. (1966). Research in Education (7th ed.). New Delhi: Pretence Hall of India Private Ltd.
2. Chauhan, P.S., & Sharma, P. (2023). A Study of Teachers' Attitude towards Information and Communication Technology (ICT) at Senior Secondary Level. International Journal of Creative Research Thoughts (IJCRT), 11(5), c759-c767.
3. Gaonkar, M.A. (2022). Examining High School Teacher's Attitude towards ICT Use in Education. International Journal of Creative Research Thoughts (IJCRT), 10(8), c263-c268.
4. Kagyera, Denis Katakara; Wellars, Banzi; & Kamuhanda, Danny (2022), An Assessment of Student Teacher's Attitudes Towards Incorporation of ICT in Mathematics Instruction, *Journal of Positive School Psychology*, *6*(4), 4185-4193.
5. Kothari, C. R. (2001). Research Methodology: Methods and Techniques (2nd ed.). New Delhi: Vikas Publishing House Private Ltd.
6. Koul, L. (1984). Methodology of Educational Research. New Delhi: Vikas Publishing House Private Ltd.
7. Kumar, M.R., & Sankar, B. B. (2023). A Study on Attitude towards ICT of Undergraduate Students. International Journal of Multidisciplinary Educational Research, 12(4), 112-116.
8. Undi V.A. & Hashim H. (2021), The Demands of 21st Century Learning: A Study on Primary School Teachers' Attitudes towards Using ICT in English as a Second Language (ESL) Classrooms, *Creative Education*, *12*, 1666-1678.
9. Yadav, A. (2022). A Study of the Attitude of the Government and Private High School Teachers towards the use of ICT with Respect to Arts and Science Stream. International Journal of Engineering Science and Computing, 7(9), 14914-14916.

~ * ~