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ATTITUDE TOWARDS INFORMATION TECHNOLOGY FOR ENHANCING BLENDED LEARNING

Vanessa Vera Khriam
*Research Scholar
**Dr. Rihunlang Rymbai*
**Associate Professor
Department of Education, North-Eastern Hill University, Shillong

Abstract

Information technology (IT) has advanced so rapidly that it is being used in the educational practices of secondary schools, and blended learning (BL) methods are being included. Blended learning, which is present in the form of a blend of traditional face to face learning along with digital learning tools, is increasingly recognized as having the potential of improving student engagement along with learning consequences. The process of implementation of blended learning, however, depends also on teachers' attitudes towards IT. This study will investigate secondary school teachers' perspectives on IT integration and analyse if they differ by gender or geographic location.

Keywords: Attitude, Information Technology, Blended Learning

I. INTRODUCTION

Information technology (IT) has grown very fast and has impacted educational practices across the globe, thus leading to the adoption of blended learning methodologies in secondary schools. Blended learning, which blends face-to-face education with digital learning approaches, has been accepted for enhancing student engagement, flexibility, and learning outcomes (Graham, 2019). Although there is a significant level of dependency on teachers' viewpoints on information technology, in terms of their willingness and desire to employ information technology in teaching, blended learning will be more effective or ineffective. (Ertmer and Ottenbreit-Leftwich, 2019). Other factors that may impact teachers' attitudes towards IT include technological skill, perceived utility of digital technologies, institutional support, and past technological experiences (Teo, 2011). Considering that positive attitudes can increase acceptance and promote the use of IT in the classroom, opposition or skepticism can hinder the utilization of BL methodologies (Tondeur et al., 2017). The research's goal is to investigate secondary school teachers' views of information technology to

support blended learning. However, it is important to know their views in order to design proper training programmes to overcome possible hurdles and eliminate the hurdle of technology friendliness. By assessing teachers' perceptions, this study contributes to the ongoing discussions regarding the role of IT in education along with the need to develop strategic interventions to facilitate the attitudes and activities of teachers regarding blended learning uptake in secondary schools.

II. REVIEW OF RELATED LITERATURE

Several studies have looked at teachers' attitudes toward the utilization of IT. In Islahi and Nasrin (2019), teachers' perspective on IT was examined, with factors that include medium of instruction, training, school location, and marital status, and it was determined that gender has no significant role in IT adoption. Tsitouridou and Vryzas (2003) explored Greek early childhood teachers and found that modest but positive attitudes regarding IT were limited to these teachers by lack of access to IT, which was influenced by home computer use, teaching experience, and in-service training. Similarly, Ersoy and Kavaklioglu, in the year 2020, investigated attitudes of Turkish secondary school teachers and highlighted technological adaptation concerns of teachers along with student perspectives concerning teacher attitudes' role in shaping student perspectives. Albirini (2006) examined Syrian EFL teachers and found that their attitudes toward the ICT in education had been influenced by computer proficiency, cultural perceptions, and prior experiences with technology. Lastly, Misra (2024) found that teachers of secondary schools had been comfortable and proficient in using ICT, with no significant variation in attitudes as per gender, age, academic stream, or school geography.

III. OBJECTIVES

The present study has the following objectives:

1. To study the attitude of secondary school teachers towards information technology.
2. To find out the difference in attitude towards information technology between male and female secondary school teachers.
3. To find out the difference in attitude towards information technology between urban and rural secondary school teachers.

IV. HYPOTHESES

The following hypotheses were formulated:

$H_0$1: There is no significant difference in attitude towards information technology between male and female secondary school teachers.

$H_0$2: There is no significant difference in attitude towards information technology between urban and rural secondary school teachers.

V. LIMITATION OF THE STUDY

1. Current research encompassed only 200 secondary school teachers.
2. This research has been confined only to the East Khasi Hills District in Meghalaya.

VI. METHODOLOGY

a. **Method of study:** This research intended to inspect secondary school teachers' attitudes towards IT. The researcher adopted a descriptive survey approach in carrying out this current research.

b. **Sample and sampling technique:** The Present study sample consisted of 200 secondary school teachers from the East Khasi Hills District in Meghalaya, selected employing stratified purposive sampling.

Table 1. *Distribution of Sample*

Variables	Categories	Frequency	Total
Sex	Male	52	
	Female	148	**200**
Locale	Urban	156	
	Rural	44	**200**

c. **Tools used**

The tool used in the current research was an "Attitude Scale Towards Information Technology for Teachers (ASTITT-$_{NI}$)" that was made by Dr. (Mrs.) Nasrin and Dr. (Mrs.) Fatima Islahi (2012).

VII. STATISTICAL TECHNIQUE

To analyse the data, various descriptive and inferential statistics were adopted, like mean, percentage, *SD* (standard deviation), along with the t-test.

VIII. ANALYSIS OF DATA

Data collected had been examined and interpreted under the subsequent objectives.

Objective 1: To study the attitude of secondary school teachers towards information technology.

For investigating secondary school teachers' attitudes towards IT, data had been analyzed and interpreted utilizing percentage, frequency, and range of raw scores. The range of raw scores is expressed in Table 2.

Table 2

Level of Attitude of the Secondary School Teachers Towards the IT (Information Technology)

Range of Raw Scores	Frequency	Percentage (%)	Level of attitude for IT
143 & more	0	0%	Extremely Favourable Attitude
126 to 142	22	11%	Highly Favourable Attitude
109 to 125	108	54%	Positively Favourable Attitude
85 to 108	70	35%	Moderate Favourable Attitude
68 to 84	0	0%	Unfavourable Attitude
50 to 67	0	0%	Highly Unfavourable Attitude
49 & less	0	0%	Extremely Unfavourable Attitude
Total	**200**		

Table 2 shows that 54% of secondary school teachers have a positively favourable attitude towards IT, followed by 35% of secondary school teachers having a moderately favourable attitude to IT, with 11% of secondary school teachers having a highly favourable attitude towards IT.

Objective 2: To find out the difference in attitude towards information technology between male and female secondary school teachers.

Descriptive along with inferential statistics had been utilized to analyze the data to ascertain the way male and female secondary school teachers differed in their attitudes on IT. As per the provided hypothesis, the objectives' analysis and interpretation are discussed.

$H_0$1: There is no significant difference in attitude towards information technology between male and female secondary school teachers.

Table 3

Difference in the Attitude towards information technology between Male and Female secondary school teachers

Variable (Sex)	N	Mean	SD	df	't'	Table 't'	Level of significance
Male	52	115.4	8.05				
Female	148	115.6	10.32	198	-0.16	1.97	Not Significant at 0.05

From this above table 3, it has been revealed that the mean and standard deviation of male group of teachers in case of attitude towards information technology is 115.4 and 8.05 respectively. Similarly, mean along with SD of the female group of teachers are 115.6 and 10.32, correspondingly. Calculated t-value among male along with female secondary school teachers is -0.16, that is lesser in contrast with table value at the 0.05 level of confidence. Consequently, null hypothesis has been accepted.

Objective 3: To find out the difference in attitude towards information technology between urban and rural secondary school teachers.

For finding out differences in attitudes on IT among rural, urban secondary school teachers, data collected was analysed and interpreted according to the objectives and based on the stated hypothesis.

$H_0$2: There is no significant difference in attitude towards information technology between urban and rural secondary school teachers.

Table 4

Difference in the Attitude towards the information technology between Urban and Rural secondary school teachers

Locale	N	Mean	SD	df	't'	Table 't'	Level of significance
Urban	156	116	9.06	198	1.05	1.97	Not Significant at 0.05
Rural	44	113.9	11.97				

From the above table 4, it is revealed that mean and SD of urban group of teachers in case of attitude towards information technology is 116 and 9.06 respectively. Similarly, mean and SD of the rural group of teachers are 113.9 and 11.97 respectively. Computed t-value among male along with female secondary school teachers is 1.05, that is smaller in contrast with the table value at the 0.05 confidence level. Therefore, null hypothesis has been accepted.

IX. FINDINGS AND DISCUSSIONS

The research's outcome stated that 54 percent of secondary school teachers possess a positive attitude towards IT, 35 percent have a moderately favourable attitude, and 11 percent possess a highly favourable attitude towards IT. These findings correspond to the findings of Mahajan (2016), who identified that approximately 25 percent of teachers had only a favourable attitude towards technology's utilization in teaching. Yusuf et al. (2011) also revealed that most student-teachers exhibit a positive attitude towards ICT utilization, and they are proficient in some basic ICT tools' utilization. Şahin-Kizil (2011) also discovered that EFL teachers have good opinions regarding the usage of ICT for pedagogical reasons. They see computers as superior to conventional methods of education and appropriate for their curricular objectives.

The present study indicates that no substantial variation is there in attitude towards IT among male along with female teachers; this consequence has been consistent with the outcome of Wong et al. (2007); Mahajan, (2016); Yusuf et al. (2011), and Dalnaik (2023 which shows that neither male nor female student teacher attitudes toward IT have been influenced by their gender. It also contradicts the findings of Behera et al. (2023) that a huge variation is there among the attitudes of male and female teachers about ICT's utilization in education.

This current investigation reveals that no significant variation is there between attitudes of the teachers towards information technology regarding their places of residence either urban or rural; this finding is by Bahera et al. (2023), finding that rural and with urban teachers have no difference in their attitude to the utilization of ICT in education. Findings do not support the findings of Dalnaik (2023) that there has been a great variation between rural and urban secondary school teachers' attitudes toward incorporating ICT into teaching-learning procedures.

X. SUGGESTIONS

1. **Professional Development and Training:** Regular training workshops may be conducted to improve teachers' technological skills and raise their confidence in utilizing IT in teaching methods.
2. **Institutional Support:** Schools should be provided with appropriate technical support, infrastructure, and resources for smooth implementation of IT in teaching-learning procedures.
3. **Encouraging IT Use in Teaching:** Teachers should be encouraged through incentives as well as recognition programmes through peer collaboration schemes to utilize IT in introducing IT tools into their instructional methods.
4. **Bridging the Urban-Rural Divide:** Special initiatives should be taken to bring rural schools on par with the technological resources for reducing the possibility of any IT adoption disparity.
5. **Continuous Research and Feedback:** Further studies monitoring the evolution of teachers' attitudes to IT are required in order that policies and training programmes can remain up to date and adequate.
6. **Collaboration with Experts:** Teachers also benefit from partnering with IT experts, educational technologists, and other educators to keep up with the latest developments in technology and pedagogy.

XI. CONCLUSION

The study shows that secondary school teachers have generally favourable attitudes towards information technology (IT), 54 % having a positive attitude, 35 % having a moderately favourable attitude, and 11 % having an extremely favourable attitude. However, the data provide no evidence of large differences among male and female teachers or urban and rural instructors regarding views about IT. These findings imply that there is no major discrepancy between gender and geography of teachers regarding their views on information technology in education. This study emphasizes that blended learning in secondary school needs to be fulfilled with teachers' attitudes towards technology.

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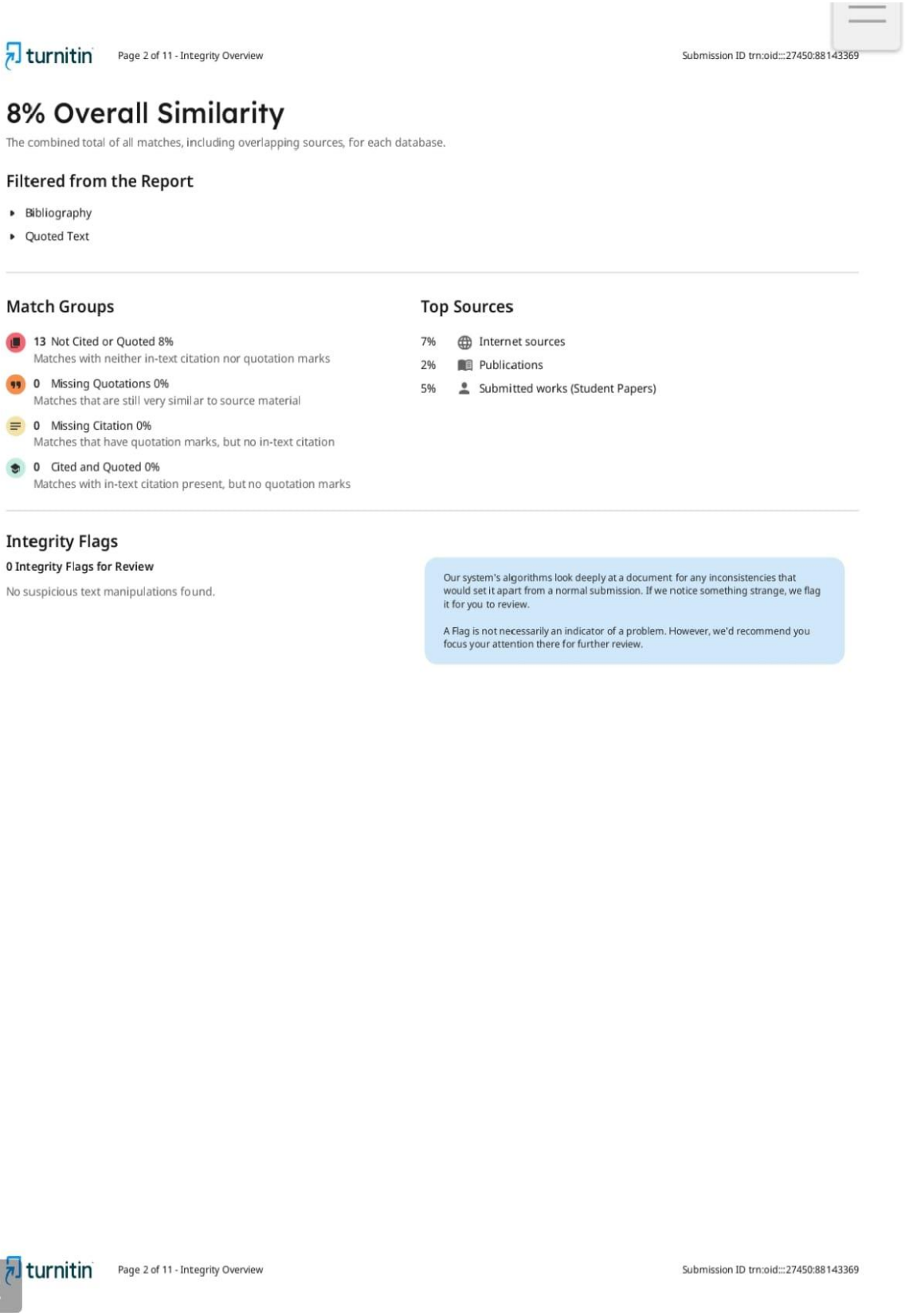

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