Attitude of Government Secondary School Teachers in Mamit District towards the Use of Information Technology

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Abstract

This study aims to find out the level of attitude among government secondary school teachers in Mamit district towards information technology. It also tries to find out whether gender has effect on the teacher's attitude towards information technology. A sample of 50 secondary school teachers in Mamit was selected. Attitude Scale towards Information Technology for Teachers (ASTITT-NI) by Nasrin and Islahi (2012) was used for data collection. The findings of the study revealed that i) there is a moderate favourable attitude among secondary school mathematics teachers in Mizoram towards the use of information technology. ii) there is no significant difference in the attitude of male and female secondary school mathematics teachers towards Information Technology

Keywords: *Information technology, Attitude, Secondary school teacher, Gender, Mamit District.*

Introduction

In the ever-changing world, technological advancement influence all of our life and we cannot pass a day without using at least one information technological device. Information technology (IT) is the use of any computers, storage, networking and other physical devices, infrastructure and processes to create, process, store, secure and exchange all forms of electronic data ("Wikipedia," 2022). According to 'Merriam Webster' Dictionary Information Technology is the technology involving the development, maintenance, and use of computer systems, software, and networks for the processing and distribution of data. Thus, Information Technology is a term that encompasses all form of technologies used to create, store and exchange information of all kind.

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In today's education, information technology plays a significant role in the teaching learning process. With the covid-19 pandemic inhibiting school going for more than a year, information and technological tools have become the mode of transaction of knowledge for teacher and students. There is an increase in pressure to use new technology in our educational system as the new technology provides various applications to be used in the educational sector. The use of information technology in education opens a new era of knowledge and offers a tool that has the potential to change many of the existing educational methods.

In India, Various commissions and committees have recommended various methods for improvements in the quality of education. As a result, the teachers are inspired, motivated, to develop better curriculum, text books and teaching aids. As per the NEP 2020, technology in education shall be given major emphasis, the National Educational Technology Forum (NETF) is going be created to supply a platform for the free exchange of ideas on the utilization of technology to reinforce learning, assessment, planning, administration, and so on, both for college and better education. Information technology also changed the ways that school subject is taught and learned.

Pierce and Ball (2009) on their research paper reports the responses of a diverse cohort of 92 secondary mathematics teachers who chose to respond to an Australian state-wide survey (Mathematics with Technology Perceptions Survey) developed using a Theory of Planned Behaviour framework. They conclude that despite an overall positive attitude towards the use of technology for teaching mathematics, some perceived barriers to change are notable. It is, therefore, helpful if those responsible for professional development, promoting the use of technology, recognise and address these barriers as well as working to strengthening enablers.

Rana (2012) conducted a study to assess the teacher educators' attitudes towards technology integration in classrooms. The results show that most of the teacher educators have positive attitudes towards the general role that information and communication technology can play in education and in the educational process. The findings also reveal that no gender differences exist on attitudes towards ICT in teacher training.

Muhanna and Nejem (2013) conducted a study aimed at investigating the attitudes of mathematics teachers toward using a smart board in teaching mathematics and also to determine the effect of gender, experience, and qualification of teachers on their attitudes. The results of the study revealed that the mathematics teachers have positive attitudes toward using a smart board in teaching mathematics. Results showed that there is no statistically significant difference due to gender variable.

Fanai and chhangte (2016) conducted a study to find out the attitude of secondary school teachers of Aizawl district, Mizoram towards ICT. It is found that the teachers have positive attitude towards ICT and also that there is no significant difference between junior and intermediate teachers, intermediate and senior teachers and junior and senior teachers.

Meher et. al. (2020) investigated the attitude of teachers teaching in Gangadhar Meher University, Sambalpur towards the use of ICT both descriptively and comparatively. In this study attempt has been taken to compare the attitude of teachers on the basis of their sex and stream. The findings of the study revealed that near about 60% teachers expressed strong positive attitude and rest 40% positive attitude towards the use of ICTs in teaching-learning process. The findings of the study also revealed no significant difference among the attitude of teachers with reference to their sex and stream.

Al-zboon et.al. (2021) conducted research aims to identify science and math ematics teachers' attitudes towards integrating Information and Communication Technology (ICT) in their educational practice through applying the Unified Theory of Acceptance and Use of Technology (UTAUT). The results showed the attitudes of science and mathematics teachers towards integrating information and communication technology in the educational process were high and positive. In addition, the results showed that science and mathematics teachers had positive and high perceptions of integrating information and communication technology in the educational process in all dimensions (performance expectancy, effort expectancy, social influence, and facilitating conditions).

Goswami (2021) conducted a study related to the secondary school teachers' attitude towards ICT in Meerut City. Attitude Scale towards Information and Communication Technology for Teachers was used to collect the data. The findings showed that secondary school teachers have a favourable attitude towards ICT. The results indicated that there is no significant difference in the secondary school teachers' attitudes towards ICT in relation to stream, gender and areas of school.

Rationale of the Study

For those teachers, who already are used to their own method of teaching, imbibing information and technology as a new way teaching may pose difficulty as it not only requires them to change their old way but also, they need to acquire new knowledge regarding information and technology thus requiring change of attitude and more effort from the teachers for successfully implementing information technology in an educational programme. Research studies indicate that the success

of technology integration in education depends greatly upon the attitudes of the teachers and their willingness to embrace such technology (Rana, 2012).

The Government of India implements different technology integration programme to the schools through different schemes. However, before implementation of the programmes, there has been few research regarding the use of information and technology in the school. What is missing in particular, are the studies on teachers' reaction to the new tool, without this information, there may be unforeseen consequences for IT dissemination in school.

Statement of the Problem

The problem under study can be stated as "Attitude of Government Secondary School Teachers in Mamit District towards the Use of Information Technology".

Objectives

i. To find out the attitude of government secondary school teachers in Mamit district towards information technology.

ii. To compare the attitude of government secondary school teachers in Mamit district towards information technology with respect to Gender.

Hypothesis

H1: There is a significant difference between the attitude of Male and Female government secondary school teachers in Mamit district towards information technology.

Null Hypothesis

HO1: There is no significant difference between the attitude of Male and Female government secondary school teachers in Mamit district towards information technology.

Methodology

The study is a descriptive survey technique which involves the collection of primary data about subjects through the use of a questionnaire.

Population and Sample

This study had been carried out from 15 government secondary schools in Mamit district, Mizoram. Thus, all the government secondary school teachers in

Mamit district comprises of the population of the study, 50 teachers were selected as a sample by using simple random sampling technique.

Tool Used

Attitude Scale towards Information Technology for Teachers (ASTITT-NI) by Nasrin and Islahi (2012) was used for data collection. The items were categorised in term of the several dimensions of attitude towards information technology as given below:

a) Impact of IT
b) Usefulness for students
c) Productivity for teaching
d) Teacher's interest and acceptance of IT.

The test was administered through online mode and offline mode by sending the link of google form to the selected sample teachers by using WhatsApp and by collecting data personally. Participants were asked to respond to 30 Likert-type statements dealing with their attitudes toward Information Technology. 58 responses were recorded from the participants. The scheme of scoring response categories involved differential weightage such that the response category, Strongly Agree (5) represents the maximum score of the scale and Strongly Disagree (1) represents the minimum score. Higher scores indicate more positive attitudes and lower scores indicate fewer positive attitudes. Out of the total of 30 items 12 items were negatively stated, which needs reversing of polarity. Prior to analysis of the data negatively stated items were reversed. The maximum and minimum possible score ranges from 30 to 150. High score indicated the favourable attitude towards using online resources.

Analysis and Findings

The analysis and major finding of the study is discussed in the following paragraph based on the objectives.

Analysis and Findings on Objective No 1: To find out the attitude of secondary school mathematics teachers in Mizoram towards information technology.

The following table (Table 1) shows the level of attitude towards information technology among government secondary school teachers in Mamit district.

Table-1

Teachers Attitude Towards Information Technology

Raw Score Range	Grade	Level of Attitude	No. of teachers	Percentage
143 & More	A	Extremely Favourable	1	2
126 – 142	B	Highly Favourable	4	8
109 – 125	C	Positively Favourable	21	42
85 – 108	D	Moderate Favourable	22	44
68 – 84	E	Unfavourable	2	4
50 – 67	F	Highly Unfavourable	0	0
49 & Less	G	Extremely Unfavourable	0	0

Source: Field Survey

From Table 1, it is evident that only 2 percent of the sample has extremely favourable towards information technology and 4 percent of the sample has highly favourable attitude towards information technology. Majority of the sample teachers attitude falls on positively and moderate favourable attitude towards information technology i.e. 86 percent and only 4 percent of the sample has unfavourable attitude towards information technology. The overall mean of the entire sample is 108.76, which is Grade C as per the norms of the scale and it can further be interpreted that the attitude of secondary school teachers in Mamit district towards information technology is positively favorable attitude.

Thus, it can be concluded that government secondary school teachers in Mamit district has a positively favorable attitude towards information technology.

Findings on Objective No 2: To compare the attitude of government secondary school teachers in Mamit district towards information technology with respect to Gender.

Null Hypothesis(H1) : There is no significant difference between the attitude of Male and Female government secondary school teachers in Mamit district towards information technology.

Table-2

Attitude of Male and Female Secondary School Teachers towards Information Technology

Gender	No. Of Teachers	Mean	Variance	Pooled Variance	t-value	Significance level
Male	43	108.53	127.54	170.7	0.302	Not Significant
Female	7	110.14	472.81			

Source: Field Survey

Table 2. shows the comparison of the attitude of male and female government secondary school teachers in Mamit district towards information technology. There is a gender imbalance in the government secondary school teachers in Mamit district, majority of the population comprise of male teachers. The calculated t-value was found to be 0.302 with degrees of freedom 48, which is smaller than the critical value at the required level of significance i.e. 2.02. So, the null hypothesis, "There is no significant difference between the attitude of Male and Female government secondary school teachers in Mamit district towards information technology" is accepted. Thus, it can be concluded that attitude of government secondary school teachers in Mamit district towards information technology is not affected by the gender.

Conclusion

The present investigation evaluated secondary school teachers' views on the application of ICT in the classroom and it concluded that government secondary school teachers in Mamit district has a positively favorable attitude towards information technology. The attitudes of teachers, who ultimately decide how they are utilised in the classroom, play a significant role in how successfully educational innovations are implemented. Thus, it is believed that the latest introduction to the installation of smart classroom at government secondary school in Mamit district have a positive result in the future.

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