

School Teachers' Attitude Towards Information Technology Post Covid-19

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Abstract

The 21st century is that of Information Technology. No one, either human beings or any institution, can survive without it. Information technology has brought the world closer; the development, progress and survival of our world is dependent on our attitude towards it. The education institution has been impacted immensely by the various inventions of information and communication technology. No teaching- learning is effective without the use of technology. The use of different gadgets and applications has changed the classrooms. It has made teaching-learning process interesting and joyful. It, also, aids the teacher in teaching concepts with clarity. Furthermore, the distance between the teacher and the taught is no longer detrimental to learning since technology has made it possible to connect long distance through different applications. This was undeniably proven true during the COVID-19 pandemic when the world went into lockdown. The teachers were forced to resort to online teaching albeit their ability and knowledge to use the different applications for it. And the use of platforms such as Google Meet, Zoom and other such applications would become an essential part of the process of teaching and learning at present as well as in the future. Different Commissions and Education Policies have time and again emphasised on the importance of Information Technology in the school education context. However, such discourses and understanding about the importance of technology would be futile if the teachers do not possess a positive attitude towards information technology. Therefore, an attempt was made to enquire into the status of the attitude of school teachers towards information technology. Such an attempt post COVID-19 pandemic was deemed essential as the use of technology in and outside the classroom would see a growth and the teacher will have to be a willing participant.

Keywords: Information Technology, Attitude, Gender, Type of Management, Training, School Levels Experience.

Introduction

The 21st century has seen the growth of the use of Information Technology as never before. Every aspect of life have been penetrated by it. The use of information technology cannot be over-emphasized, especially so in the domain of education. The National Policy on Information and Communication Technology (ICT) In School Education, 2012, stated that technology is 'an omnibus support system for education' (pp5). NCF 2005 has emphasised the role of technology in addressing the learning needs of learners. It has, also, suggested exploration of self-pace and self- learning and the dual mode of study through the use of technology, while drawing attention to the integration of technology in the teaching-learning process. The NEP 2020 envisions technology assisted educational reform when it states that "technology itself will play an important role in the improvement of educational processes and outcomes", (pp56).

In recent years the school education sector has witnessed an increased use of technological equipment and gadgets. The radio, the television and the over head projector (OHP) which were indispensable aids in the hands of the teacher have now been replaced by more sophisticated ones. The smart phones, smart-boards, computers, tablets are some of the recent technological devices which are used for enhancing learning outcomes in the classroom. However, it is to be borne in mind that such devices can only be effective tools if the teacher has the ability and the skill to operate them on one hand, and the desire and motivation to utilise them to their fullest potential on the other. The availability of multifarious modern information technology, would mean nothing and a wastage of resources if the teacher has a poor attitude towards its use. The attitude of the teacher towards technology, also, has immense bearing upon the psyche of the students. It will decide the individual student's attitude towards the subject handled by the particular teacher as well as the achievement of the student.

The attitude of the teacher towards information technology has become all the more important at present due to two reasons. The first reason is that the present generation learners are technology savvy. They are born with technology in their hands. Their lives are invariably connected with the world wide web and therefore, would find it easier to learn when technology is made use of in the teaching-learning process. The second reason is that the education system was caught unawares during the COVID -19 pandemic. Many teachers, especially at the school level, experienced a sudden shift in the transactional approach which was entirely of a different nature. The use of e-platforms like Google Meet and Zoom became the norm. This demanded an altogether different game where the teacher had to use his or her imaginative and creative prowess to plan for the learning outcome of the students. Although normalcy has been reclaimed in the functioning of the educational institutions it would be unwise for the teachers to assume that technology need not be a part of the daily classroom transaction anymore. The concept of blended learning which is making its way into the curriculum is a challenge for all educators. Therefore, teachers will have to have a positive and sensitive attitude towards information technology.

This paper is a humble attempt to probe into the attitude of teachers towards the use of information technology, post - COVID - 19 pandemic.

Objectives

The objectives for the survey were -

1. To know the Attitude Level of school teachers towards Information Technology.
2. To compare the Attitude of school teachers towards Information Technology in relation to gender, type of management, training status, school levels and teaching experience.

Hypotheses

H₀₁: There is no significant difference between the attitudes of male and female teachers towards Information Technology.

H₀₂: There is no significant difference between the attitudes of Private and Government teachers towards Information Technology.

H₀₃: There is no significant difference between the attitudes of Trained and Untrained teachers towards Information Technology .

H₀₄: There is no significant difference in the attitudes towards Information Technology among teachers teaching at different school levels.

H₀₅: There is no significant difference in the attitudes towards Information Technology among Practicing School Teachers of MCTE .

Methodology

Descriptive survey method was adopted for the purpose of the study. The population consisted of the teachers who were working in the practice- teaching schools that host the internship programme of the Mokokchung College of Teacher Education (MCTE), Nagaland.

Sample

Applying the simple random sampling technique 161 teachers were chosen as sample. Out of these 51 were male teachers, 110 were female teachers. Further, 52 teachers were selected from middle school level, 54 from secondary school level and 55 from higher secondary school level.

Tools and Technique

Attitude Scale towards Information Technology for Teachers (ASTITT-NI) developed by Nasrin and Fatima Islahi were used for the collection of data. The scale consisted of twelve negative statements and eighteen positive statements. It was based on four dimensions of impact of information technology, usefulness for students, productivity for teaching and teacher's interest and acceptance. T-test and One Way ANOVA were used for analysis.

Findings

1. The attitude level of school teachers towards Information Technology was found to be as under

Table-1 : Frequency and percentage distribution of overall attitude scores towards IT

Sl.No.	Class Interval	Frequency	Frequency Percentage	Cumulative Percentage
1.	77-87	1	0.6	0.6
2.	88-98	14	8.7	9.3
3.	99-109	41	25.5	34.8
4.	110-120	73	45.3	80.1
5.	121-131	27	16.8	96.9
6.	132-142	5	3.1	100
Total		161	100	

Table 1 showed that the attitude scores of practicing school teachers of MCTE, Mokokchung Town towards Information Technology. It can be observed that out of 161 respondents, 5 respondents scored in the highest range 132-142 and 1 respondent scored in the lower range of 77-87 and the majority of the respondents (105) i.e. 65.2 % of the respondents, scored in the average ranges between 110-120 and above. This implies that the majority of the respondents have a Positively Favourable level of attitude towards Information Technology.

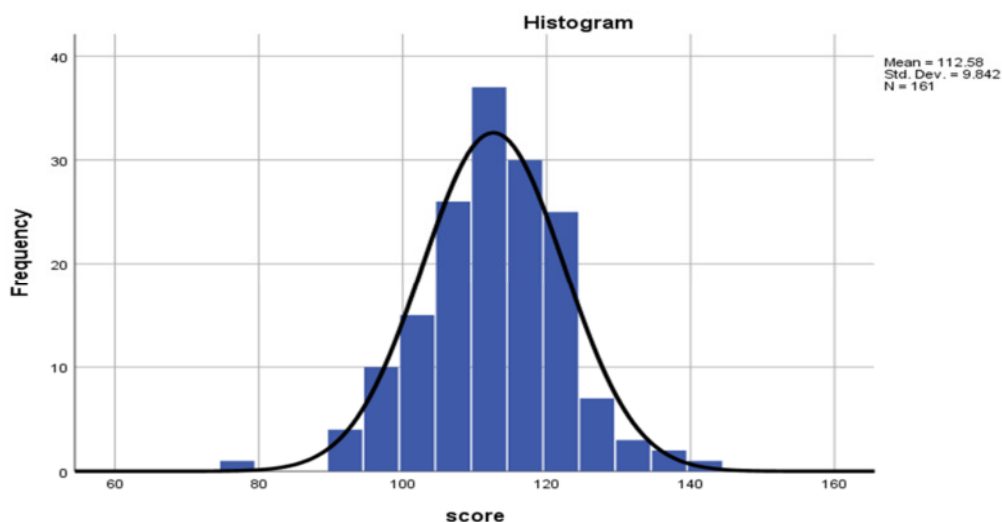


Figure 1: Graphical presentation of attitude score towards IT.

- 2 Comparison of the attitude of teachers towards Information Technology in relation to gender, type of management, training status, school level and teaching experience was tested and it gave the following results -

H₀₁: There is no significant difference between the attitudes of male and female teachers towards IT.

Table-2 : Result of t-test in respect of attitude scores of male and female teachers towards IT

Gender	N	Mean	SD	df	'P' value	Remarks
Male	51	114.41	10.36	159	0.11	Not significant at 0.05 level
Female	110	111.72	9.52			

From, Table 2, it was observed that P-value=0.11 ($p > 0.05$) for attitude towards information technology between male and female school teachers is higher than 0.05. It means that there is no significant difference between the attitude towards IT of male and female school teachers of MCTE. Thus, **H₀₁** cannot be rejected.

H₀₂: There is no significant difference between the attitudes of Private and Government teachers towards Information Technology.

Table-3: Result of t-test in respect of attitude scores of Private and Government teachers

Type of Management	N	Mean	SD	df	'P' value	Remarks
Government	83	112.93	8.82	159	0.64	Not significant at 0.05 level
Private	78	112.21	10.87			

From, Table 3, it was observed that P-value=0.64 ($p > 0.05$) for attitude towards Information technology between Government and Private school teachers is higher than 0.05. It means that there is no significant difference between the attitudes of Government and Private practicing school teachers of MCTE towards IT. Thus, **H₀₂** cannot be rejected.

H₀₃ : There is no significant difference between the attitudes of Trained and Untrained teachers towards Information Technology

Table-4
Result of t-test in respect of attitude towards Information Technology of Trained and Untrained teachers

Type of Management	N	Mean	SD	df	'P' value	Remarks
Trained	85	112.32	9.87	159	0.72	Not significant at 0.05 level
Untrained	76	112.87	9.86			

From, Table 4, it was observed that P-value=0.72 ($p > 0.05$) for the attitude towards Information technology between Trained and Untrained practicing school teachers is higher than 0.05. It means that there is no significant difference between the attitude towards IT of Trained and Untrained practicing school teachers of MCTE. Thus, **H₀₃** is accepted.

H₀₄: There is no significant difference in the attitudes towards Information Technology among different levels teachers.

Table 5(a): Attitude towards Information Technology according to the school levels

Level	N	Mean	SD
Middle	52	109.92	9.42
Secondary	54	113.13	11.16
Higher Secondary	55	114.55	8.36
Total	161	112.58	9.84

Table 5(b) : Result of F-test for the significant difference among different levels of teachers

Source of Variance	Sum of squares	df	Mean Square	F	'P' value	Remarks
Between Groups	595.858	2	297.929	3.159	0.045	significant at 0.05 level
Within Groups	14903.421	158	94.325			
Total	15499.280	160				

Table 5 (b) showed that P-value = 0.045($p < 0.05$) is less than 0.05 and is therefore statistically significant at 0.05 level of significance. It means there is a significant difference in Attitude towards Information Technology among school teachers with respect to different Levels .Thus, H_04 is rejected.

H₀₅: There is no significant difference in the attitudes towards Information Technology among Practising School Teachers of MCTE.

Table 6(a) : Attitude towards Information Technology according to length of teaching years

Length of teaching	N	Mean	SD
5 years and below	49	111.20	11.16
6-10 years	43	113.49	9.89
11-15 years	33	115.97	8.59
16-20 years	20	109.55	8.51
More than 20 years	16	111.13	7.94
Total	161	112.58	9.84

Table 6(b) : Result of F-test for the significant difference among teachers

Source of Variance	Sum of squares	df	Mean Square	F	'P' value	Remarks
Between Groups	724.906	2	297.929	1.914	0.111	Not significant at 0.05 level
Within Groups	14774.373	156	94.325			
Total	15499.280	160				

Table 6 (b) showed that P-value = 0.111($p > 0.05$) is more than 0.05 and is therefore not statistically significant at 0.05 level of significance. Hence, H_05 cannot be rejected. Therefore, there is no significant difference in Attitude towards Information Technology among Practicing School Teachers of Mokokchung College of Teacher Education.

Conclusion

The present study showed that there was no significant difference in the attitude of male and female teachers towards Information Technology. Reasons for this could be many but it has brought to the fore that both male and female teachers were equally exposed to technology. It was also revealed that there was no significant difference in the attitude of Private and Government school teachers towards Information Technology. This may be due to the fact that both the type of schools emphasized the importance of Information Technology. Further, there was no significant difference in the attitude of Trained and Untrained teachers towards Information Technology. The result may imply that training

of teachers did not make much impact on the attitude of teachers towards the use of information technology.

However, it was noteworthy that the study showed a significant difference in the attitude of teachers teaching at different school levels. Differences in the ICT facilities made available at schools, teacher's motivation, curriculum design, and educational qualification of teachers could be the reason for such differences in the attitude of teachers. With respect to the teaching experience of the teachers there was no significant difference towards information technology which could be an indication that the school teachers had interest in and accepted the importance of technology in teaching and learning. It was encouraging to find out that the majority of teachers had positive favourable attitude towards Information Technology.

Though the findings showed that the attitude of the school teachers, at all levels, were positive toward information technology it was clear that the implications of such findings cannot be ignored. Therefore, some suggestions for the policy makers, the school administrators and management are given below -

1. Most of the classrooms, especially the government schools, are not equipped with technological facilities, therefore, school administrators and management should make efforts to provide ICT resources.
2. Each school can set up one classroom equipped with technologies like multimedia projector or digital television, speakers, internet/Wifi connection and power backup systems. In such case, the classroom could be utilized on rotational basis through organised planning. Having set such facilities may encourage and motivate both students and teachers to use technology in the teaching learning process.
3. Providing technological resources alone may not be enough, there is a need to equip the teachers with the required knowledge and skills. For that, professional development programmes focusing on development of e-content are essential.
4. Relevant programmes should also be organised on how to effectively make use of technology in the classroom to meet the varying needs of the students. The Continuous Professional Development programmes for teachers could incorporate this aspect.
5. Teachers should also get technical support in times of need as and when they are stuck, as inability to overcome such situations could lead to frustration and discouragement. Therefore, school administrators and management should take that into consideration and provide necessary technical support to teachers.

There may be so many challenges and issues in integrating technology meaningfully in the classroom situation with minimum resources. However, having a positive attitude is the first step towards integrating technology into the education system and with the joint efforts of all educational stakeholders, milestones could be achieved.

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