

A Study Of Computer Knowledge Among Higher Secondary School Teachers In Aizawl City In Relation To Teaching Experience And Type Of School Management

Lalrinzuali Fanai, Francis Lalruattluanga, Zoramsanga, Prof. Lallianzuali Fanai

Research Scholar, Research Scholar, Research Scholar, Professor
Institute of Advanced Studies in Education, Aizawl, Mizoram

Abstract

The present study seeks to determine the level of computer knowledge among higher secondary school teachers in Aizawl city in relation to their teaching experience and type of school management. The study comprised of 150 sample of higher secondary school teachers within Aizawl city selected by using simple random sampling. The findings revealed that there is no significant difference in the level of computer knowledge of higher secondary school teachers in relation to their teaching experience and in relation to type of school management. Computer Knowledge Test (CKT) developed by Dr. Ananthula Raghu and Dr. S. Mahendar Reddy in the year 2017 was used.

Keywords: Computer knowledge, Teacher, Higher Secondary School

INTRODUCTION

A computer is a device that functions on information or data. Understanding how computers work and how to use them constitutes computer knowledge. This could entail typing, learning keyboard instructions, turning on and off a computer, and understanding how to connect and deactivate a computer from the Internet. The meaning of computer knowledge in its simplest form is computer literacy; it is the ability of a person to use a computer to get information for professional or general purposes.

For effective implementation of certain student-centric methodologies such as project-based learning which puts the students in the role of active researchers and technology becomes the appropriate tool. ICT has enabled better and swifter communication; presentation of ideas in more effective and relevant way. The main advantage of using Computer in the field of education is to enhance teaching and learning and for improving the quality of teaching-learning process and communication between teachers and students. For this reason, ICT is necessary for Education, and teachers must also have thorough computer knowledge and its application in order to make a successful teaching-learning interaction (Bhalla, 2014).

LITERATURE REVIEW

Massoud (1991) investigated on the topic titled “Computer Attitudes and Computer Knowledge of Adult Students”. In this study a computer survey was used to assess the attitudes and knowledge of 252 adult basic students in Texas. Data analyses indicated no

significant differences between Computer Attitudes (Anxiety, Confidence, and Liking) and age; whereas significant differences were indicated with computer knowledge and gender of the respondent.

Asan (2003) conducted a research study titled “Computer Technology Awareness by Elementary School Teachers: A Case Study from Turkey”. In this study was conducted on 252 teachers who were working in basic education schools in Trabzon, Turkey. The results revealed that many teachers lacked a functional computer literacy foundation upon which to build new technology and skills. Analysis of teachers’ knowledge of computer technologies revealed low levels of technical knowledge, as well as some interesting perceptions of the role of some specific computer-related items. This study showed that gender, years of teaching, and school status have a significant relationship to familiarity with computer technologies in Turkey.

Reyes (2019) conducted a study titled “Computer Competency Level of Elementary Teachers of Southern Tabuk District-1”. The study determined the computer competency level of the elementary teachers of Southern Tabuk District-1. In the conducted study of the computer competency level of elementary teachers in Southern Tabuk District-1, the perceptions of the respondents on the use of computer along Microsoft Applications is not significant, and younger teachers in the service are more exposed and competent in the use of computer compare to those teachers who are 21 years above in the teaching.

OBJECTIVES OF THE STUDY

1. To compare the level of computer knowledge of higher secondary school teachers in relation to their teaching experiences.
2. To compare the level of computer knowledge among higher secondary school teachers in relation to type of school management.

HYPOTHESES OF THE STUDY

1. There exists a significant difference in the level of computer knowledge of higher secondary school teachers in relation to their teaching experiences.
2. There exists a significant difference in the level of computer knowledge among higher secondary school teachers in relation to type of school management.

METHODOLOGY

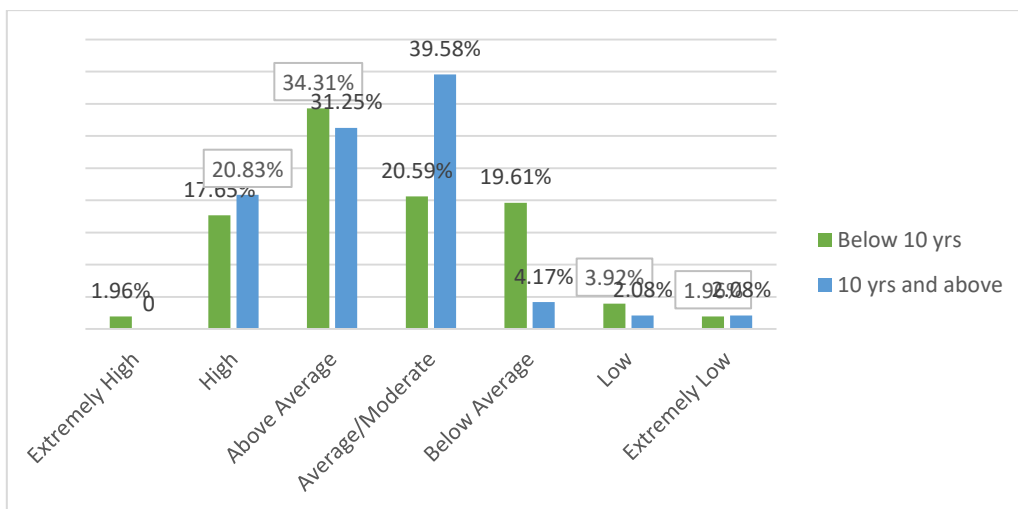
The current study analyses and interprets data obtained using Computer Knowledge Test Scale developed by Drs. Raghu Ananthula and Mahendra Reddy Sarani in 2017. 19 schools were selected using simple random sampling, from these schools, a total of 150 higher secondary school teachers from Aizawl was taken using simple random sampling method. Descriptive statistics like percentage, mean, standard deviation, etc., as well as inferential statistics like T-tests and ANOVA were used to examine the data. The results showed that there is no significant difference in the level of computer knowledge in relation to teaching experience and type of school management.

FINDINGS OF THE STUDY

In order to compare the level of computer knowledge among higher secondary school teachers in relation to their teaching experiences, statistical techniques like Mean, Standard Deviation and t-test were used. The calculated results are presented in the following:

1. To compare the level of computer knowledge of higher secondary school teachers in relation to their teaching experiences.

Figure-1.1: Comparison of the level of computer knowledge of higher secondary school teachers in relation to their teaching experiences



The above figure 1.1 showed that out of 102 teachers with less than 10 years experience only 2 teachers with less than 10 years experience have extremely high computer knowledge 18 teachers i.e., 17.65% represented high computer knowledge, 35 teachers i.e. 34.31% fell under above average computer knowledge, 21 teachers i.e., 20.59% comprised of average/moderate computer knowledge, 20 teachers i.e. 19.61% were found to possessed below average computer knowledge, 4 teachers i.e., 3.92% was marked to have low computer knowledge and 2 teacher i.e. 1.96% were found to possessed extremely low computer knowledge.

Out of 48 teachers with 10 years and above experience, there are no who have extremely high computer knowledge, 10 teachers i.e., 20.83% represented high computer knowledge, 15 teachers i.e., 31.25% fell under above average computer knowledge, 19 i.e., 39.58% comprised of average/moderate computer knowledge, 2 teachers i.e., 4.17% were found to possessed below average computer knowledge, 1 teacher i.e., 2.08% was marked to have low computer knowledge and 1 teacher i.e., 2.08% was found to possessed extremely low computer knowledge.

Table 1.1. Comparison of the level of computer knowledge of higher secondary school teachers in relation to their teaching experiences

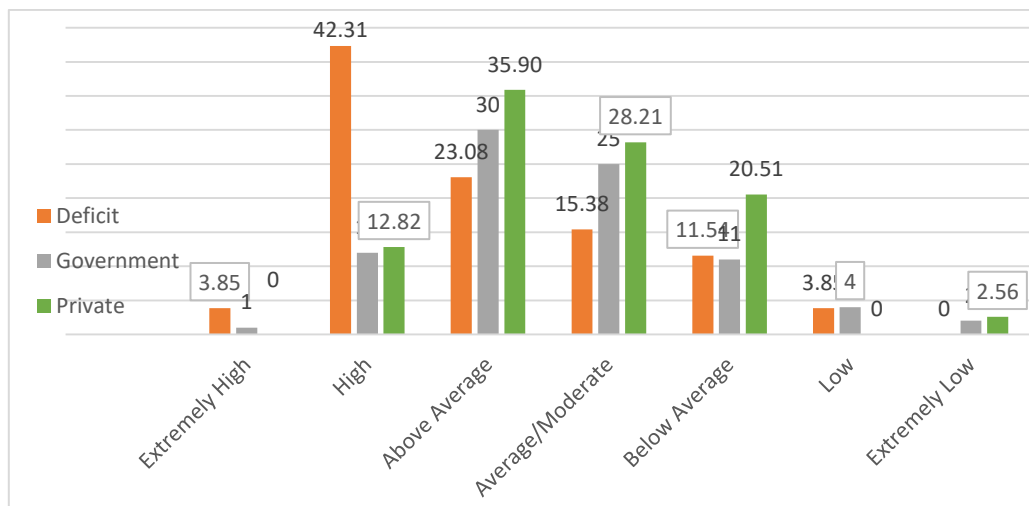
Experience	No. of Teachers	Mean	SD	SED	t-value	Level of significance
Below 10	102	42.245	8.128	1.3704	0.8093	Not significant
10 & above	48	43.354	7.684			

The table number 1.1 revealed the t-value found is 0.8093 which is less than the critical value at 0.01 which is 2.62. Hence, the null hypothesis “there is no significant difference in the level of computer knowledge between higher secondary school teachers in relation to their teaching experiences” cannot be rejected.

2. To compare the level of computer knowledge among higher secondary school teachers in relation to type of school management.

In order to compare the level of computer knowledge among higher secondary school teachers in relation to type of school management, statistical techniques like Mean, Standard Deviation and ANOVA were used. The calculated results are presented in the following:

Figure-2.1. Comparison of the level of computer knowledge of higher secondary school teachers in relation to type of school management.



The above figure 2.1 showed that out of 26 higher secondary school teachers only 1 teacher i.e., 3.85% have extremely high computer knowledge, 11 teachers i.e., 42.31%, represented high computer knowledge, 6 teachers i.e., 23.08% fell under above average computer knowledge, 4 teachers i.e., 15.38% comprised of average/moderate computer knowledge, 3 teachers i.e., 11.54% were found to possessed below average computer knowledge, 1 teacher i.e., 3.85%, comprised of low computer knowledge and there are no teachers from deficit schools who have extremely low computer knowledge.

Out of 85 higher secondary school teachers from government only 1 teacher i.e., 1.18% have extremely high computer knowledge 12 teachers i.e., 14.12% represented high computer knowledge, 30 teachers i.e., 35.29% fell under above average computer knowledge, 25 teachers i.e., 29.41% comprised of average/moderate computer knowledge, 11 teachers i.e., 12.94% were found to possessed below average computer knowledge, 4 teachers i.e., 4.71% comprised of low computer knowledge, 2 teachers i.e., 2.35% were found to possessed extremely low computer knowledge.

Out of 39 higher secondary school teachers 5 teachers i.e., 12.82% represented high computer knowledge, 14 teachers i.e., 35.9% fell under above average computer knowledge, 11 teachers i.e., 28.21% comprised of average/moderate computer knowledge, 8 teachers i.e., 20.51% were found to possessed below average computer knowledge, there are no teacher who have low computer knowledge 1 teacher i.e., 2.56% were found to possessed extremely low computer knowledge. There are no teachers who have extremely high and extremely low computer knowledge.

In order to compare the level of computer knowledge among higher secondary school teachers in relation to type of school management statistical techniques like ANOVA was used. The calculated results to compare the level of computer knowledge among higher secondary school teachers in relation to type of school management are presented in Table-2.1.

Table-2.1: Summary of ANOVA.

Sources of variance	Degrees of freedom	Sum of the squares	Mean Square	F Ratio
Between Set	$(s-1) = 3-1 =2$	330.907	165.453	2.634
Within set	$N-s=150-3=147$	9235.467	62.83	

The table number 1.2 revealed the calculated F-ratio is 2.634 which is less than the critical value at 0.01. Hence, the null hypothesis “There is no significant difference between higher secondary school teachers of Deficit, Government and Private in their levels of computer knowledge” is cannot be rejected.

DISCUSSION

From the study, two third of higher secondary school teachers with less than 10 years of teaching experience and teachers with 10 years and above teaching experience possessed average/moderate level of computer knowledge. The result also revealed that majority i.e., 42.31% of higher secondary school teachers from deficit have high level of computer knowledge, 35.29% and 35.9% of higher secondary school teachers from Government and Private respectively have above average level of computer knowledge.

In the present study, the investigator found that there is no significant difference between the level of computer knowledge of higher secondary school teachers in relation to their teaching experience and type of school management. The possible cause for this finding could be due to older teachers attending in-service training, undertaking refresher courses and pursuing professional development course on ICT for their professional development. It could also be a result of the organisation of continual professional development for teachers, which improves their computer proficiency. Teacher training and professional development is seen as the key driver for the successful usage of computer in education and it also contributes significantly to the advancement of teachers' computer proficiency.

CONCLUSION

The amount of computer knowledge that teachers possess, their access to computers, and how frequently they use technology in their daily lives are all factors that affect teachers' levels of computer knowledge and this might potentially have influenced the results of the current study.

The main goal of education is to promote a child's holistic development, and teachers play a critical role in accomplishing this goal. Each school aspires to be the finest among others. For this to achieve, teachers' professional development is encouraged in every type of school. Teachers therefore take refresher courses, training, etc. in various areas to become successful and effective and for skill development to give their students the best learning outcomes and also flourish in various aspects of their work.

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