A Study of Technophobia among Secondary School Teachers

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ABSTRACT
Teaching has become one of the most challenging professions in our society where knowledge is expanding rapidly and modern technologies are demanding teachers to learn how to use these technologies. The teachers should develop in their students the necessary skills to meet the challenges in the technological world and to prepare them for the 21st century learning needs. Information and Communications Technology (ICT) can improve student learning to a great extent when teachers are digitally literate and understand how to integrate technology with school curriculum. However, most of the teachers working in secondary schools have developed a kind of fear or anxiety towards using technology in classroom teaching. This kind of technophobia on the part of the teachers has been proved to influence the student performance negatively. The present study is an attempt to know the perceptions of teachers towards the use of technology in their classroom teaching, to know the causes for their technophobia and suggest measures to overcome this problem. The researchers used a well prepared and standardized questionnaire as the tool for collection of data from a sample of 240 teachers (40 Headmasters and 200 School Assistants) selected from 40 secondary schools located in Vizianagaram District of Andhra Pradesh using Stratified Random Sampling technique. Mean score values, standard deviations and independent t-tests were used for analysis of data. The findings of the study revealed that the demographic variables – Gender, Age and Teaching Experience have no influence on the technophobia of teachers working in secondary schools. However, the high mean score values of teachers in rural schools reveal higher levels of technophobia on the part of the rural teachers as compared to their counterparts working in urban schools. The study suggests that the teachers working in secondary schools should get rid of technophobia and use ICT tools effectively in classroom teaching for the benefit of their students.
 Key words: Technophobia, Secondary school teachers. Information and Communication Technologies (ICT), Digitally literate.

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I. INTRODUCTION

Education system has a tremendous responsibility to transform a child into a fully developed individual. Over the ages, academicians and educationists of the country have been persistently working to develop a system of education which can express and promote its social and cultural identity; and accomplish the requirement of the time. Research studies are being conducted continuously in education sector for the improvement of the existing system; and to establish a system wherein learners can be equipped with necessary skills to face the challenges in the technological world and also to prepare them for the 21st century learning needs. Teaching has become one of the most challenging professions in our society where knowledge is expanding rapidly and modern technologies are demanding teachers to learn how to use these technologies.

Technology today has opened avenues for people in different fields such as business, agriculture, engineering, medicine, commerce, marketing, education etc. The students in schools and colleges should have a thorough understanding of technology. Information and Communications Technology (ICT) can impact student learning to a great extent when teachers are digitally literate and understand how to integrate it with curriculum. The teachers should equip themselves with the necessary skills to use technology effectively for the benefit of their students. National Curriculum Framework (NCF)-2005 envisioned: "Integration of Information and Communication Technologies (ICT) into schooling needs serious consideration. Teacher educators, Curriculum developers, Evaluators and other stakeholders will have to redefine their roles to tackle ICT rich environment and harness its full potential for the benefit of the learners". As the teacher plays a significant role in the

management of learning, teachers should equip themselves with ICT competencies to design new learning environments using the most modern technologies in the field of education. However, most of the teachers working in secondary schools have developed a kind of fear or anxiety towards using technology in classroom teaching. This kind of technophobia on the part of the teachers is a hindrance in the teaching learning process; and influences student performance negatively. Hence, the teachers should get rid of technophobia; and join the main stream of integrating technology in education to the best of their abilities in their classroom teaching in order to make their students understand the concepts better and face the challenges in the changing scenario.

THE CONCEPT OF 'TECHNOPHOBIA'

Technophobia is the fear of advanced technology or complex devices. The word, 'technophobia' is derived from the Greek '*techne*' meaning "art, skill or craft" and *phobos* meaning "fear or aversion". It is the opposite of technophilia, i.e. love for technology. In technophobia, there is a sense of irrational fear, anxiety and a feeling of being uncomfortable with the technological gadgets and their application.

The constant fear and anxiety hinder teachers to accept new advancements in technology. To meet the needs of the new generation learners, teachers need to keep pace with the innovative teaching learning practices using technology effectively. But technophobia becomes a setback in adopting and adapting technology.

NEED FOR THE PRESENT INVESTIGATION

Information technology (IT) has made a considerable impact on almost every aspect of society. A working familiarity with IT is becoming increasingly important in every field in general and in the field of education in particular. Computers now have become an integral part of our daily life. The advent of technology in education has changed the way people live. Considering current trends in education, a modern classroom would not be complete without computer software, internet connectivity, projectors and a variety of other hi-tech devices. So teachers find themselves wandering in a situation, where they have to make use of technology to make learning more effective. On the other side of the picture, majority of teachers agree that tools of ICT are very useful for them in the classroom; but due to their anxiety, they avoid using them in the classroom. Further they pass on their anxiety and negative attitudes to their students. Researches indicate low adoption of computer technology in schools, though the institutions provide necessary hardware and software for their users. This kind of situation is very dangerous in the Indian classrooms where teachers have anxiety or phobia to integrate technology in teaching. So there is need to investigate the perceptions of teachers towards the use of technology in their classroom teaching, to know the causes for their technophobia; and suggest measures to overcome this problem. The present investigation is an attempt in this direction.

OBJECTIVES OF THE STUDY

The main objective of the present study is to find out the perceptions of secondary school teachers towards integration of technology in classroom teaching.

The study also aims at finding out the causes of technophobia among secondary school teachers; and know the differences, if any existing in the technophobia of teachers with regard to certain demographic variables such as gender, age, teaching experience and location of the institution.

HYPOTHESES OF THE STUDY

The following hypotheses have been formulated for the present investigation:

(i)   There is no significant difference in the technophobia of male and female teachers working in secondary schools.

(ii)   There is no significant difference in the technophobia of secondary school teachers aged below 40 years and those aged 40 years and above.

(iii)   There is no significant difference in the technophobia of secondary school teachers with an experience of less than 10 years and those with 10 years and above.

(iv)   There is no significant difference in the technophobia of teachers working in rural and urban secondary schools.

LIMITATIONS OF THE STUDY

The study is limited to find out the influence of four demographic variables, viz., gender, age, teaching experience and location of the institution on the technophobia of teachers working in secondary schools. Further, the study is confined to 240 secondary school teachers (40 Headmasters and 200 School Assistants) working in 40 secondary schools located in Vizianagaram district in Andhra Pradesh.

II. METHODOLOGY

(a) **Sample:** The sample of the study consisting of 240 teachers (40 Headmasters and 200 School Assistants) has been selected from 40 secondary schools located in Vizianagaram district of Andhra Pradesh using Stratified Random Sampling technique.

(b) .**Research Tool:** The researchers used a well prepared questionnaire consisting of 46 items as the tool of research for the present investigation. The tool was initially administered to 50 teachers (10 Headmasters and 40 School Assistants) under Pilot study. The measures of reliability, validity and objectivity of the tool have been calculated. Further, the researchers conducted item analysis for the items included in the tool. Out of 46 items selected for the tool, the discriminating power of 40 items has been found positive and is negative in respect of 6 items. The items whose discriminating power is negative have been removed; and the final tool consists of 40 items, which are foolproof in all respects. The final tool has been administered to 240 teachers (40 Headmasters and 200 School Assistants) working in 40 Secondary Schools of Vizianagaram district in Andhra Pradesh.

STATISTICAL INTERPRETATION OF DATA

The data collected has been analyzed using different statistical techniques such as Mean score values, Standard Deviations and t-ratios; and are presented in the following table.

Table showing t-values of different variables relating to the perceptions of teachers working in Secondary schools towards technophobia

S. No.	Variable		N	Mean	S.D.	t-ratio	Result
1	Gender	Male Female	130 110	122.96 118.86	31.99 34.58	0.95*	*Not Significant at 0.05 and 0.01 levels
2	Age	Below 40 years 40 yrs. & above	150 90	125.70 123.17	34.77 34.57	0.55*	*Not Significant at 0.05 and 0.01 levels
3	Teaching Experience	Less than 10 yrs 10 yrs. & above	170 70	125.79 125.93	32.99 32.98	0.03*	*Not Significant at 0.05 and 0.01 levels
4	Location of the institution	Rural Urban	160 80	126.00 112.25	35.84 32.01	2.75*	* Significant at 0.05 and 0.01 levels

III. FINDINGS OF THE STUDY

On the basis of the analysis and interpretation of data, the researchers have arrived at the following findings and drawn the conclusions.

1. There is no significant difference in the technophobia of male and female teachers working in secondary schools

2. There is no significant difference in the technophobia of secondary school teachers aged below 40 years and those aged 40 years and above.

3. There is no significant difference in the technophobia of secondary school teachers with an experience of below 10 years and those with an experience of 10 years and above.

4. There is significant difference in the technophobia of teachers working in rural and urban secondary schools. The rural school teachers have exhibited higher levels of technophobia as compared to their counterparts working in urban schools.

IV. CONCLUSIONS

From the findings of the study, it is concluded that gender, age and teaching experience have no influence on the technophobia of teachers working in secondary schools. However, teachers working in secondary schools in rural areas have higher levels of technophobia as compared to their counterparts working in urban areas.

EDUCATIONAL IMPLICATIONS
(i)   The study would help the teachers identify the difficulties faced by secondary school teachers in the ure of ICT tools effectively in classroom teaching.
(ii)   The present study helps the teachers working in secondary schools to get rid of their technophobia.
(iii)   The study would help the secondary school students to have a better understanding of the school subjects when their teachers integrate technology in school curriculum.
(iv)   The study would help the government and policy makers to take necessary steps for the effective integration of ICT in school curriculum.
(v)   The study would help the Academic Organizations like SCERTs, IASEs and the State Departments of Education to take necessary steps to provide orientation to the teachers working in secondary schools in the effective use of ICT tools in classroom teaching.

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