

A STUDY ON THE ATTITUDE OF TEACHERS TOWARDS THE USE OF TECHNOLOGY TO IMPROVE QUALITY IN TEACHING IN THE SECONDARY SCHOOLS OF ANDHRA PRADESH

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ABSTRACT

Education is an effective means of social reconstruction. It is the process of facilitating learning. It helps in the acquisition of knowledge, skills, values, morals, beliefs and habits necessary for the human living. 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 use of technology can improve student learning to a great extent when teachers are digitally literate and know how to integrate it in their classroom teaching. As the teachers play a significant role in the teaching-learning process, they should equip themselves with the necessary competencies of using modern technologies to improve quality in teaching. The present study is an attempt to explore the attitude of teachers towards the use of technology to improve quality in teaching in secondary schools in relation to certain demographic variables, viz., gender, age, teaching experience and location of the institution. Descriptive Survey method has been adopted in this study. The sample consisting of 300 teachers (160 Male and 140 Female) from 50 secondary schools in Visakhapatnam district of Andhra Pradesh has been selected using Stratified Random Sampling method. The data were collected using a questionnaire developed and standardized by the researchers. The data were analyzed using different statistical techniques such as means, standard deviations and t-tests. The findings of the study revealed that the variables - gender, age, teaching experience and location of the institution have no influence on the attitude of teachers towards the use of technology to improve quality in teaching in secondary schools.

Key words: *Modern Technologies, secondary school teachers, attitude, quality improvement, digitally literate.*

INTRODUCTION

Education is one of the most powerful instruments of social, economic and cultural transformation necessary for the realization of national goals. It helps to increase the productivity, achieve national and emotional integration and accelerate the process of modernization. It cultivates social, moral and spiritual values among people.

Education is the most important factor contributing to the process of development. It is the need of the hour to invest in human capital for sustainable development. This enhances the productivity of the people with innovation and entrepreneurial skills. Such an effective and innovative education system creates numerous opportunities for individuals. Hence, there is a need to invest in human capital formation and ensure quality in education.

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 use of technology can improve student learning to a great extent when teachers are digitally literate and integrate technology in their classroom teaching.

CONCEPT OF 'TECHNOLOGY IN EDUCATION'

Technology in education is also known as educational technology or Ed.Tech. The combination of computer hardware and software with educational theory facilitates the learning of students. Additionally, educational technology can be based on theoretical knowledge from several disciplines such as educational sociology, artificial intelligence, computer science and communication engineering. Further, educational technology also helps students learn through

various media such as computer-assisted learning, computer-aided instruction, online learning, digital learning and so on.

The Association for Educational Communications and Technology (AECT) has defined technology in education as “the study and ethical practice of facilitating learning and improving performance by creating, using and managing appropriate technological processes and resources” (Richey et al., 2008). In other words, educational technology refers to the process of integrating technology in education with the objective of diversifying the learning environment for students.

Educational Technology is a systematic, iterative process for designing instruction or training used to improve performance (**The Encyclopedia of Educational Technology**).

According to **Michael Spector, J. (2015)**, Educational Technology involves the disciplined application of knowledge for the purpose of improving learning, instruction and/or performance.

Educational technology has been proved as a way of enhancing the potential of the industry. By leveraging the power of technology, educational technology has enabled the automation of various tasks, allowing teachers to make classroom teaching more effective. Through careful use of technology in education, the student performance in the classroom can be improved to a great extent.

QUALITY CONCERNS IN TEACHING

Education is the most powerful tool in shaping the progressive society. It is essential for development of an individual’s mind and progress of any nation. People can understand the processes and take necessary measures if they are educated. Education trains and nurtures the mind and capabilities of learners. Education is the most important factor which enhances the knowledge

and skills; critical and creative thinking; and logical reasoning among the students. It is also responsible for shaping the personality and character of the learners. Quality in Education has been a global concern and ultimate goal to meet the basic needs of children, youth and adults (**Ritu Chandra, 2022**).

The quality of education and the excellence of its function would depend upon the attitude of the persons concerned about the educational goals, aims and objectives. Hence, the understanding of quality in general and quality of education in particular is related to the persons or community to whom it matters. Teachers are the main functionaries to provide quality education to the students. The teachers should be well aware of the educational goals and objectives in the teaching-learning process. Every subject has its quality indicators, which guide the teachers to maintain quality in teaching that particular subject.

The aim of education is the holistic development of learners and to prepare them according to contemporary needs of the society. It also aims at imbibing life skills and lasting values. To bring quality in education is universally identified. The learner's attainment is a major concern to overcome rote learning methods. The quality in education must reconcile with the vision of participatory democracy that India upholds and practices. Its practice in education demands that the quality education should be available to all in different regions and sections of the society.

Quality in education can best be assessed from the improvement exhibited by the students in their performance. Attainment of learning outcomes can be achieved through the appropriate experiences designed for the child with respect to imparting knowledge and imbibing skills. The course curriculum should be designed in such a manner that it should include all aspects of life skills. Quality Education cannot function in isolation. All the functionaries – teachers, parents,

students and the community should work hand-in-hand in order to provide quality education to the students.

NEED FOR THE PRESENT INVESTIGATION

There is an urgent need to focus on Secondary Education as it the most important link between the primary and higher education. It acts as a pivotal point to harness the human resources and develop human capital. During the phase of secondary education through skill training and vocational training, the impetus can be given on human capital formation. Since many of the secondary school learners drop out of school before completion of their education, it is desired to train them with life skills education so as to raise their socio-economic status.

To meet the challenges of 21st century needs and to provide quality education to students, it is the need of the hour to integrate technology in education in general and that of secondary education in particular. Since teachers are the main stakeholders to achieve this goal, they should possess a positive attitude and right perceptions towards integration of technology in secondary education. The school managements should provide necessary infrastructural and instructional facilities in schools; and create conducive environment for student learning. They should appoint teachers who are committed and dedicated for the noble cause of teaching to work in their schools. The teachers should be encouraged to integrate technology in their teaching in order to make teaching more meaningful and purposeful. In this context, the researchers felt it necessary to find out the attitude of teachers to integrate technology in teaching in order to improve quality in secondary education. The present investigation is an attempt in this direction.

OBJECTIVES OF THE STUDY

The main objective of the present study is to investigate the attitude of teachers towards integration of technology in education in order to improve quality in teaching at secondary level.

The study also aims at finding out the influence of certain demographic variables - gender, age, marital status and teaching experience on the attitude of secondary school teachers towards the use of technology to improve quality in teaching at secondary level.

HYPOTHESES OF THE STUDY

The following hypotheses have been formulated for the present investigation:

- (i) There is no significant difference in the attitude of male and female teachers towards the use of technology to improve quality in teaching at secondary level.
- (ii) There is no significant difference in the attitude of teachers aged below 40 years and those aged 40 years and above towards the use of technology to improve quality in teaching at secondary level.
- (iii) There is no significant difference in the attitude of married and unmarried teachers working in secondary schools towards the use of technology to improve quality in teaching at secondary level.
- (iv) There is no significant difference in the attitude of teachers with an experience of less than 10 years and those with 10 years and above towards the use of technology to improve quality in teaching at secondary level.

LIMITATIONS OF THE STUDY

The study is limited to find out the influence of four demographic variables, viz., gender, age, marital status and teaching experience on the attitude of teachers towards the use of technology to improve quality in teaching at secondary level. Further, the study is confined to 300 teachers (160 Male and 140 Female) working in 50 secondary schools located in rural as well as

urban areas in Visakhapatnam District of Andhra Pradesh. These schools are being managed by the Government, Local Body and Private organizations.

METHODOLOGY

(a) Method of Research

Since the present study involves collecting data with the help of survey, the investigators used Descriptive survey method for the present investigation.

(b) Sample

The sample of the study consisting of 300 teachers (160 Male and 140 Female) has been selected from 50 secondary schools located in Visakhapatnam district of Andhra Pradesh using Stratified Random Sampling technique.

(c) .Research Tool

The researchers used a questionnaire with 35 items, developed and standardized by the researchers themselves as the tool of research to collect data from the respondents.

(d) Administration of the Tool

The tool was initially administered to 30 teachers (15 Male and 15 Female) from the secondary schools located in and around Visakhapatnam city 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 35 items selected for the tool, the discriminating power of 30 items has been found positive and is found negative in respect of 5 items. The items whose discriminating power is negative have been removed; and the final tool consists of 30 items which are pool proof in all respects. The final tool has been administered to 300 teachers (160 Male and 140 Female) working in 50 Secondary Schools under different managements, viz., the Government, the

Local Body and the Private organizations, located in the rural as well as urban areas in Visakhapatnam District of Andhra Pradesh.

STATISTICAL INTERPRETATION OF DATA

The duly filled-in questionnaires have been collected from 300 respondents for purpose of tabulation of data.

The data collected has been analyzed and interpreted 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 attitude of teachers towards the use of technology to improve quality in teaching at secondary level

S. No.	Variable		N	Mean	S.D.	t-ratio	Result
1	Gender	Male	160	97.87	26.84	0.99*	*Not Significant at 0.05 and 0.01 levels
		Female	140	100.79	24.26		
2	Age	Below 40 years	180	99.06	25.56	0.26*	*Not Significant at 0.05 and 0.01 levels
		40 yrs. & above	120	99.84	25.68		
3	Marital status	Married	210	99.45	27.06	0.25*	*Not Significant at 0.05 and 0.01 levels
		Unmarried	90	100.28	25.21		
4	Teaching Experience	Less than 10 yrs	170	98.85	28.65	0.06*	*Not Significant at 0.05 and 0.01 levels
		10 yrs. & above	130	98.65	26.07		

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 attitude of male and female teachers towards the use of technology to improve quality in teaching at secondary level.

2. There is no significant difference in the attitude of teachers aged below 40 years and those aged 40 years and above towards the use of technology to improve quality in teaching at secondary level.
3. There is no significant difference in the attitude of married and unmarried teachers working in secondary schools towards the use of technology to improve quality in teaching at secondary level.
4. There is no significant difference in the attitude of teachers with an experience of less than 10 years and those with 10 years and above towards the use of technology to improve quality in teaching at secondary level.

CONCLUSIONS

From the findings of the study, it is concluded that gender, age, marital status and length of service of the teachers working in secondary schools have no influence on their attitude towards the use of technology to improve quality in teaching at secondary level.

EDUCATIONAL IMPLICATIONS

- (i) The study would help the teachers identify the difficulties faced by their students in secondary schools in learning different school subjects; and suggest remedial measures to overcome the difficulties.
- (ii) The present study helps the teachers to bring about the necessary changes in the Pedagogy with regard to the teaching of different school subjects in order to improve quality in teaching at secondary level.
- (iii) The study would help the teachers to take up innovative practices in teaching for quality improvement at secondary level.

- (v) The study would help the teachers working in secondary schools to integrate technology in teaching in order to make teaching-learning more meaningful and purposeful.
- (vi) The study would help the administration to provide conducive environment in schools in order to improve quality in teaching at secondary level.
- (v) The study would help the Academic Organizations like SCERTs, IASEs and the State Departments of Education to take necessary steps for planning and implementing different schemes to integrate technology in teaching at secondary level.
- (vi) The study would develop in the teachers positive attitude and right perceptions towards the use of technology for quality improvement in teaching at secondary level

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