



DIFFICULTIES FACED BY THE TEACHERS IN IMPLEMENTING MODERN TECHNOLOGY AT HIGHER SECONDARY LEVEL

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Abstract

The main objective of this study is to find out the level of difficulties faced by the teachers' in implementing modern technology at higher secondary level and also to find out whether there is any difference in their difficulties in implementing modern technology based on few personal and demographic variables. The sample for this study consists of 300 higher secondary teachers' (both male [150] and female [150]) from government and government aided schools from Theni educational district. The tool used for the study Teacher's difficulty in implementing modern technology questionnaire was developed by the investigator (I. Lenin, 2012). The investigator found that the level of teachers' faced difficulties in implementing modern technology in their class room teaching is below average in nature. It is found that there is no significance difference in teachers' difficulties in implementing modern technology with respect to the following personal and demographical variables: (i) Sex, (ii) Type of school, and (iii) Nature of the school. The investigator also found that there is significance difference in teachers' difficulties in implementing modern technology with respect to the locality of the School.

Keywords: *Modern Technology, Difficulties, Higher Secondary Teachers.*



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Introduction: “Education is considered as an instrument of man’s economic and social advancement and a door to the process of modernization. It is understood that it is a means to develop man.” – Gandhiji Modern Educational Technology is the systematic application of scientific knowledge about teaching, learning and condition of learning to improve the efficiency of teaching and learning. According to the National Policy on Education (1986), Modern Educational Technology may be employed in the spread of useful information, the training and retraining of teachers, to improve quality, share awareness of art and culture, inculcate abiding values etc., both in the formal and non-formal sectors. Maximum use will be made of the available infrastructure. While pointing out the media and technology, the policy highlights the significance of technology in the field of education. National Policy on Education, 1992 (Revised) has emphasized the application of Modern Education Technology to improve the quality of education at all levels. The chief activity of education is to change individuals in some way to add the knowledge, which otherwise they would not perform to develop certain understandings, insights and appreciations. The impact of modern educational technology in teaching and learning process at the higher educational levels can be felt in more than one way, not only it has lead to the usage of gadgets and machines to facilitate efficient and effective learning but it has also led to understand the learner’s psychology and evolve suitable techniques of teaching and evaluation. One of the important goal of higher education is to enable the students to become self- reliant: assume responsibilities and set their own goals. These skills or abilities are essential, because in real life situation there will be no teachers to direct the students as to what decision to make. In order to prepare them for the situation, Competency Based Education (CBE), which is based mainly on students setting their goals; formulating a course of action and selecting alternatives will go a long way.

Review of Related Study: Rebecca et al (2010) conducted a study on incorporate technology into the modern language classroom. In their study they found that the UDL are to support learning by providing multiple, flexible methods of presentation, expression & apprenticeship and options for engagement. Albert et al (2010) conducted a study on teacher experiences on the integration of modern educational games in the middle school mathematics classroom. The results provide compelling evidence that the use of modern educational games in a formal K-12

setting serves as an agent for change in instructional practice, student-to-student and teacher to student relationships, the skills and dispositions of students. Miller et al (2009) conducted a study on talking about our troubles: using video based dialogue to build pre-service teachers' professional knowledge. The implications their study suggest that how constructive and critical conversations between prospective teachers can play an important role in their professional development. Park et al (2008) conducted a study on examining barriers in technology enhanced problem based learning: using a performance support systems approach. The result of their study reveals that lack of a clear, shared vision was the primary barrier. Additional barriers included lack of knowledge and skills, unclear expectations and insufficient feedback.

Objectives of the Study:

The following are the objectives of the present study:

To find out the teachers' level of difficulties in implementation of modern technology at higher secondary level.

To find out whether there is any significant difference in teachers' difficulties in implementing modern technology based on the following personal and demographical variables: (i) Sex, (ii) Type of school, (iii) Locality of the school and (iv) Nature of the school.

Hypotheses of the Study: The following hypotheses are formulated to do the investigation in the right perspectives: The teacher's difficulties in implementing modern technology in higher secondary schools are found to be at average level. There is no significant difference in teachers' difficulties in implementing modern technology based on the following personal and demographical variables: (i) Sex, (ii) Type of school, (iii) Locality of the school and (iv) Nature of the school.

Methodology: The investigator adopted a survey method.

Population and Sample: The higher secondary teachers in Theni educational district are considered as a population for the present study. The samples consist of 300 teachers (150 male and 150 female) of 20 higher secondary (Government & Government Aided) schools were selected by using simple random sampling method.

Tool used for the Study: The investigator developed a questionnaire to assess the teacher's difficulties in implementing modern technology (I. Lenin, 2012). The questionnaire has 25 items and all the items in the questionnaire are open ended questions.

Validation of the Research Tool: Pilot study was carried out in two schools from Theni District namely Government higher secondary school, Kottur and Z.K.M. higher secondary school, Bodi. The sample of the pilot study was 30 higher secondary school teachers among them 15 male and 15 female. Applying the spilt-half method, the reliability of the questionnaire on teachers difficulties were established. The Spearman-Brown Prophecy formula was used for establishing the reliability of the tool from the self-correlation of the half-tests. The values of 'r' being 0.79, it is conducted that the questionnaire on teachers difficulties is reliable.

Collection of Data: The investigator got permission from the heads of higher secondary schools and met the teachers. Before administrating the tool, the purpose of the study was explained and appropriate directions were given in responding the items.

Scoring Procedure: Three point scales was used for scoring. The respondents answer the items by specify strongly accepted, accepted and strongly refused carries 2, 1 and 0 marks respectively. The scores are added and these scores are considered as to identify the level of teachers' difficulties in implementing modern technology in their school.

Statistical Techniques Used:

In the present study the investigator used the following statistical techniques:

Descriptive Analysis (Mean, Standard Deviation)

Differential Analysis (t-value, F-ratio)

Analysis and Interpretation of the Data: The collected data were subjected to statistical analysis and it is analyzed using SPSS package.

Table-1: Level of Difficulties in implementing modern technology

Variable	Level	Range	Frequency	Percentage
Difficulties in Implementing Modern Technology	Below Average	0-45	138	47.86
	Average	46-56	70	23.14
	High	57-100	92	29
	Total		300	100

From the Table-1 the percentage of score reveals that teachers' level of difficulties in implementing modern technology in their class room teaching was below average in nature.

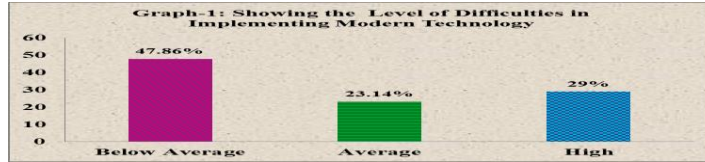


Table-2: Showing the Significance of mean difference between male and female teachers’ and their difficulties in implementing modern technology at higher secondary level

Sex	M	SD	N	t-value	Level of Significance
Male	24.15	19.87	150	0.20	Not Significant
Female	23.71	17.27	150		Significant

Table-2 shows that there is no significant difference between the male and female teachers and their difficulties in implementing modern technology at higher secondary level.

Table-3: Showing the Significance of mean difference between government and government aided school teachers’ and their difficulties in implementing modern technology at higher secondary level

Type of School	M	SD	N	t-value	Level of Significance
Government	23.76	6.1	150	0.68	Not Significant
Government aided	24.10	1.6	150		

Table-3 shows that there is no significant difference between the government and government aided school teachers’ and their difficulties in implementing modern technology at higher secondary level.

Table-4: Showing the Significance of mean difference between rural and urban teachers’ and their difficulties in implementing modern technology at higher secondary level

Locality of the School	M	SD	N	t-value	Level of Significance
Rural	22.69	3.13	150	10.63*	Significant

Urban	17.48	5.24	150
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* indicates significant at 0.05 level.

Table-4 shows that there is significant difference between rural and urban teachers' and their difficulties in implementing modern technology at higher secondary level.

Table-5: Showing the Significance of mean difference between nature of schools such as boys school, girls school and co-education school teachers' and their difficulties in implementing modern technology at higher secondary level

Sources of Variance	df	Sum of Squares	Mean Squares	F-ratio	Level of Significance
Between groups	2	16.13	8.06	0.43	Not
Within groups	297	5532.54	18.62		Significant

Table-5 shows that there is no significant difference between nature of schools such as boys school, girls school and co-education school teachers' and their difficulties in implementing modern technology at higher secondary level.

Major Findings: The study revealed that the level of teachers' faced difficulties in implementing modern technology in their class room teaching is below average in nature. It is found that there is no significant difference in teachers' difficulties in implementing modern technology with respect to the following personal and demographical variables: (i) Sex, (ii) Type of school, and (iii) Nature of the school. The investigator also found significant difference in teachers' difficulties in implementing modern technology with respect to the locality of the School.

Educational Implications: The future of India is being shaped in the classroom where the teachers use technology in teaching and learning process. The learning outcome largely depends upon the technology applied by the teachers. The outcomes of instructional programmes depend on how well the teachers apply technology in the teaching and learning process. A properly developed educational technology curriculum may provide answers to educational dilemmas. The quality of the output is determined how well the teachers process the input through technology and perform their teaching and learning process. The desire for success in the school achievement puts a lot of stress on teachers in using technology. Therefore, there is a need for the teachers to have easy access to technology in lesson plan and teaching unit construction and the usability of technology to achieve optimum level of academic excellence. This investigation

is very much useful to the curriculum planners to design the curriculum by emphasizing the importance of modern educational technology in higher education. In the curriculum of modern technology both global and local problems address to the local disparity in utilization of modern techniques may be eliminated. Before implementing any modern technology in school level, it is necessary for the implementers to identify the difficulties of teachers in implementing the modern educational technology in the classroom situations.

Conclusion: Modern Educational Technology has emerged in the educational scenario as an instrument of total quality education as well as effective means of solving education related problem in India, such as low enrolment, high dropout, poor performance, low level cognition and lack of problem solving skills etc. In the aspect of national development also, technology plays a vital role. The teachers are the fulcrum of the system of education. In the teaching and learning process teachers influences the pupils. Educational reforms and implementation of innovation will be possible only if the teachers have a positive attitude and proper awareness about them. Awareness and attitude towards the practice of Modern equipment's and techniques lead to the higher efficacy of teachers in Modern class room transactional strategy.

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