ATTITUDE OF THE SENIOR SECONDARY SCHOOL TEACHERS TOWARDS USING NEW TECHNOLOGY IN TEACHING IN RELATION TO TEACHER EFFECTIVENESS

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Abstract

The present study was conducted to study the attitude of the senior secondary school teachers towards using new technology in teaching in relation to teacher effectiveness. The sample comprised 90 senior secondary school teachers (Including 45 from rural and 45 from urban area) working in the Government Senior Secondary School of Chandigarh. Attitude towards using new technology scale of Dr. Rajasekar and teacher effectiveness scale of Dr. Kulsum was administered to the sample. The data was analyzed by using mean, standard deviation, coefficient of correlation and t-test. The findings of the study revealed that there exists no significant difference between the attitude towards using new technology in teaching of the rural and urban area government senior secondary school teachers. There exists significant correlation between the attitude towards using new technology in teaching and teacher effectiveness of the rural area government senior secondary school teachers. Whereas for the urban area school teachers there exists no significant correlation between the attitude towards using new technology in teaching and dimensions of teacher effectiveness of the senior secondary school teachers.

Introduction

Technological advances have changed human life, societies and education. Educational systems around the world are under increasing pressure to use the new technologies in teaching students and spreading the knowledge and developing the required skills they need in the 21st century. Educational technology is the use of technology in designing instruction and improving education. The use of technology in education opens a new era of knowledge and offers a tool that has the potential to deal with the many of the existing educational problems. The teacher is the key to the effective use of this resource in the educational system which can surely enhances the teacher's effectiveness (Nasrin and Islahi, 2012). The effectiveness in teaching is directly or indirectly influenced by various factors such as teacher's personality, attitude and aptitude, etc. The success of any initiatives to implement technology in an educational programme depends upon the support and attitudes of teachers involved in this process. The extent to which new technology in teaching is implemented depends upon teacher's positive attitude towards new technology. Amandeep and Gurpreet (2005) in their research study found that female teachers are more effective in their teaching than male teachers and male and female teachers do not differ

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significantly as far as their teaching competency is concerned. Study also concluded that variable of teaching competency plays significant role in teacher effectiveness of the teachers. In another research study conducted by Patil and Kiran (2013) on the sample of 60 secondary school teachers of Davanagere District of Karnataka State found that female teachers have positive attitude towards using new technology when compared to male teachers. In the case of teachers attitude towards using new technology private secondary school teachers show their positive attitude towards using new technology as compared to Government secondary school teachers. whereas in another study conducted by Kusum (2013) on a sample of 100 government and private secondary school teachers in Solan district of Himachal Pradesh concluded that no significant difference exists between the attitude of private and Govt. secondary school teachers towards using new technology .

Significance of the Study

Technology tools have become a part and parcel of our life. Increasing presence of technological tools in our lives also makes sense to have technology in our teaching and classrooms. Many teachers did not value "technology" as important component of the curriculum rather they viewed it as a set of separate skills to whom someone else was responsible for teaching their students. Simply having ICT in schools will not guarantee their effective use. Teachers attitude greatly influence teachers' effectiveness. Studies have established close links and affinities between teachers' attitude and the use of ICT. New technology can play an important role in increasing teaching effectiveness of the teachers

.The present study was an effort to investigate the attitude of the government senior secondary school teachers towards using new technology in teaching in relation to teacher effectiveness.

Objectives of the study

1. To study the attitude towards using new technology in teaching of the rural and urban area government senior secondary school teachers.
2. To study the dimensions of teacher effectiveness of the rural and urban area government senior secondary school teachers.
3. To study the relationship between the attitude towards using new technology in teaching and dimensions of teacher effectiveness of the rural and urban area government senior secondary school teachers.

Hypotheses

1. There exists no significant difference between the attitude towards using new technology in teaching of the rural and urban area government senior secondary school teachers.

2. There exists no significant difference in terms of dimensions of teacher effectiveness of the rural and urban area government senior secondary school teachers.

3. There exists no significant relationship between the attitude towards using new technology in teaching and dimensions of teacher effectiveness of the rural and urban area government senior secondary school teachers.

Design of the Study

For the purpose of present investigation, descriptive survey method of research was employed. The data was collected from different rural and urban area government senior secondary schools teachers of Chandigarh with the help of psychological tools and then analyzed. The study was delimited to government senior secondary school teachers of Chandigarh only.

Sample

The sample of the present study comprised of 90 senior secondary school teachers (including 45 from rural and 45 from urban area) working in the Government Senior Secondary School of Chandigarh selected randomly.

Tools Used

Attitude Towards Using New Technology Scale by Rajasekar (2011).

Kulsum Teacher Effectiveness Scale by Umme Kulsum (2010).

Result and Discussion

Hypothesis 1: There exists no significant difference between the attitude towards using new technology in teaching of the rural and urban area government senior secondary school teachers.

Table No. 1 Difference between the attitude towards using new technology in teaching of the rural and urban area government senior secondary school teachers

VARIABLE	AREA	N	MEAN	SD	df	't' -Value	LEVEL OF SIGNIFICANCE
ATTITUDE	Rural	45	109.53	11.15	88	1.772	Non significant
	Urban	45	113.86	12.03			

Table no. 1 shows the difference between the attitude towards using new technology in teaching of the rural and urban area government senior secondary school teachers. The calculated t-value for the difference between the attitude towards using new technology in teaching of the rural and urban area government senior secondary school teachers is 1.772 which is not significant. Thus, we can say that there exists no significant difference between

the attitude of rural and urban area senior secondary school teachers towards using new technology in teaching. Hence, the Hypothesis H1 0, "There exists no significant difference between the attitude towards using new technology in teaching of the rural and urban area government senior secondary school teachers" stands accepted.

Hypothesis 2: There exists no significant difference between the dimensions of teacher effectiveness of the rural and urban area government senior secondary school teachers.

Table no. 2: Comparison of mean scores of teacher effectiveness dimensions and total teacher effectiveness between rural and urban senior secondary school teachers

DIMENSION	N	SCHOOL	MEAN	SD	t-VALUE	LEVEL OF SIGNIFICANCE
Preparation and Planning for Teaching	45	Rural	89.33	12.58	.747	Non significant
	45	Urban	87.11	15.47		
Classroom Management	45	Rural	114.33	15.43	1.38	Non significant
	45	Urban	109.44	18.04		
Knowledge of Subject Matter, etc	45	Rural	63.13	7.23	1.54	Non significant
	45	Urban	60.71	7.60		
Teacher Characteristics	45	Rural	138.80	19.78	1.57	Non significant
	45	Urban	132.73	22.76		
Interpersonal Relations	45	Rural	85.64	14.51	.479	Non significant
	45	Urban	84	17.85		
Total Teacher Effectiveness	45	Rural	491.08	62.61	1.23	Non significant
	45	Urban	472.97	76.36		

Table no. 2 shows the calculated t-values for the teacher's effectiveness dimensions including preparation and planning for teaching dimension the calculated t-value is .747, for classroom management dimension the calculated t-value is 1.38, for knowledge of subject matter dimension the calculated t-value is 1.54, for teacher characteristics dimension the calculated t-value is 1.57 for interpersonal dimension the calculated t-value is .479 and for total teacher effectiveness dimension the calculated t-value is 1.23. All the calculated t-values were found to be non significant in the case of rural and urban area senior secondary school teachers. Thus, we can say that there exists no significant difference between teacher's effectiveness of the rural and urban senior secondary school teachers. Hence, the Hypothesis H2 0, "There exists no significant difference between the dimensions of teacher effectiveness of the rural and urban area government senior secondary school teachers", stands accepted

and hence, we can say that there exists no significant difference between the dimensions of teacher effectiveness of the rural and urban area government senior secondary school teachers.

Hypothesis 3: There is no significant relationship between the attitude towards using new technology in teaching and dimensions of teacher effectiveness of the rural and urban area government senior secondary school teachers.

Table no. 3: Comparison of coefficient of correlation between the attitude towards using new technology in teaching and teacher effectiveness dimensions between rural and urban senior secondary school teachers

TEACHER FEECETIVENESS DIMENSIONS	N	SCHOOL	CORRELATION WITH ATTITUDE TOWARDS NEW TECHNOLOGY IN TEACHING	L EVEL OF SIGNIFICANCE
Preparation and Planning for Teaching	45	Rural	0.365	0.01
	45	Urban	0.070	Non significant
Classroom Management	45	Rural	0.309	0.01
	45	Urban	0.027	Non significant
Knowledge of Subject Matter, etc	45	Rural	0.395	0.01
	45	Urban	-.100	Non significant
Teacher Characteristics	45	Rural	0.399	0.01
	45	Urban	0.083	Non significant
Interpersonal Relations	45	Rural	0.201	Non significant
	45	Urban	0.105	Non significant
Total Teacher Effectiveness	45	Rural	0.368	0.01
	45	Urban	0.202	Non significant

Table no. 3 shows the calculated values of coefficient of correlation between the attitude towards using new technology in teaching and teacher effectiveness dimensions including; Preparation and Planning, Classroom Management, Knowledge of Subject matter, Teacher Characteristics, Interpersonal relations and Total Teacher Effectiveness of the rural and urban area secondary school teachers. The calculated values of coefficient of correlation between the attitude towards using new technology and teacher effectiveness preparation and planning for teaching dimension of the rural area senior secondary school teachers were found to be 0.365 (significant at 0.01 level of significance), which shows that their exists significant correlation between the attitude towards using new technology in teaching and teacher effectiveness dimension preparation and planning for teaching of the rural area senior secondary school teachers.

The calculated coefficient of correlation between the classroom management dimension of teacher effectiveness and attitude towards using new technology in teaching of the rural area senior secondary school teachers was found to be 0.309 (significant at

level of significance), which shows that there exists significant correlation between the classroom management dimension of teacher effectiveness and attitude towards using new technology in teaching of the rural area senior secondary school teachers.

The calculated coefficient of correlation between the teacher effectiveness Knowledge of Subject Matter dimension and attitude towards new technology in teaching of the rural area senior secondary school teachers was found to be 0.395 (significant at 0.01 level of significance) which shows that there exists significant correlation between the attitude towards using new technology in teaching and teacher effectiveness Knowledge of Subject Matter, etc dimension of the rural area senior secondary school teachers.

The calculated coefficient of correlation between the teacher effectiveness teacher Characteristics dimension and attitude towards using new technology in teaching of the rural area senior secondary school teachers was found to be 0.399 (significant at 0.01 level of significance) which shows that there exists significant correlation between the attitude towards using new technology in teaching and teacher effectiveness Teacher Characteristics dimension of the rural area senior secondary school teachers.

The calculated coefficient of correlation between the teacher effectiveness (Interpersonal Relations) and attitude towards using new technology in teaching of the rural area senior secondary school teachers were found to be 0.201(non-significant) for rural and 0.105 (non-significant) for urban area senior secondary school teachers which shows that there exists significant correlation between the attitude towards using new technology in teaching and teacher effectiveness Interpersonal Relations dimension of the rural area senior secondary school teachers.

The calculated coefficient of correlation between the total teacher effectiveness and attitude towards using new technology in teaching of the rural secondary school teachers were found to be 0.368 respectively which is significant at 0.01 level of significance. Whereas in the case of the urban area senior secondary school teachers the calculated values of coefficient of correlation between the attitude and teacher effectiveness is 0.202 at 43 df which is non significant at 0.05 level of significance. Hence we can say that there exists significant correlation between the attitude towards using new technology in teaching and dimensions of teacher effectiveness of the rural

area senior secondary school teachers.

Hypothesis 3 namely, *"There is no significant relationship between the attitude towards using new technology in teaching and dimensions of teacher effectiveness of the rural and urban area government senior secondary school teachers",* is partially rejected as significant

relationship between the attitude towards using new technology in teaching and dimensions of teacher effectiveness was found in the case of the rural area government senior secondary school teachers whereas for the urban area senior secondary school teachers no significant relationship between the attitude towards using new technology in teaching and dimensions of teacher effectiveness was found. Hence, we can say that, there exists significant correlation between the attitude towards using new technology in teaching and teacher effectiveness of the rural area government senior secondary school teachers.

Major Findings

1. There exists no significant difference between the attitude towards using new technology in teaching of the rural and urban area government senior secondary school teachers.
2. There exists no significant difference between the dimensions of teacher effectiveness of the rural and urban area government senior secondary school teachers.
3. There exists significant relationship between the attitude towards using new technology in teaching and dimensions of teacher effectiveness of the rural area government senior secondary school teachers.
4. There exists no significant relationship between the attitude towards using new technology in teaching and dimensions of teacher effectiveness of the urban area government senior secondary school teachers.

Educational Implications

Information rich society promotes new practices and paradigms for education where the teacher has to play new role of mentoring, coaching and providing the required support. New technology can help the teachers and students in completion of the educational goals. Different technologies help the teachers and students according to their respective nature and capabilities of storage and presentation. Positive attitude of the teachers is the prime requirement for the success of the new technologies in teaching. The result of present study indicates that the attitude of urban area government senior secondary school teachers was significantly better towards using new technology in teaching in comparison to the rural area government senior secondary school teachers. The findings of the present study suggest that in order to improve the attitude of rural area teachers towards using new technology refresher courses, workshops,

summer training camps should be organized by the various concerned agencies. The present study recommends using new technology in teaching for improving the teaching effectiveness.

References

Amandeep and Gurpreet (2005). A Study of Teacher Effectiveness in relation to Teaching Competency. Recent Researches in Education and Psychology 71(6), 137-140.

Kulsum,U.(2010). Manual for Kulsum Teacher Effectiveness Scale, Pyscho-Educational Testing Centre, New Delhi, 1-2.

Kusum (2013). Attitude of senior secondary school teachers towards using new technology. Research journal on human development. Vol.1, Number 1, 30-34.

Nasrin and Islahi,F.(2012). Manual for Attitude Scale Towards Information Technology For Teachers, Manasvi Publisher, Agra.

Patil, S.S. and Kiran, K. (2013). A Study on Teacher's Attitude towards Using New Technologies. Indian Journal of Applied Research 3 (2), ISSN - 2249-555X, 90-91.

Rajasekar, S. (2011). Manual for Attitude Towards Using New Technology Scale .Manasvi Publisher,Agra.