TOPIC OF THE PAPER: TEACHERS ICT KNOWLEDGE AND SKILLS AS THE FACTORS AFFECTING TEACHING AND LEARNING IN PRIMARY SCHOOLS IN SAMBHAL DISTRICT OF U.P

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ABSTRACT

We are living in the age where any aspect of human venture can be successfully carried on without ICT applications like Internet, computer etc. ICTs are now at the point that is equally distant from every point on the circumference of education reform in line with the technological development of the 21st century. ICT-assisted education will encouragethe acquisition of the data and skills that may empower students for long learning. The study was done in primary schools in sambhal district. The aim of the study is to determine the teacher's ICT knowledge and skills as the factors affecting the use of ICT application in Teaching and Learning in Primary school. The descriptive survey design was used to establish the factors that influence the integration and the use of ICTs in teaching and learning in Primary School. There are Primary schools that made up the target population. A sample of 30 Schools were selected out of which 15 are government school and 15 are private school. Out of 30 schools 3 teachers were selected randomly from every school. This will make a sample size of 90 Teachers. Three teachers were randomly sampled in each sample school to fill the questionnaire. The data collected was analyzed using SPSS. The study finding disclosed limited ICT skills and training in Primary teachers. Teacher training programmed should factor in ICT elements to enhance ICT skills in teaching and learning.

Key words: ICT knowledge, ICT skills, Teaching-learning process.

INTRODUCTION

ICT is now at the center of education reform efforts that involve its use in coordination with changes in curriculum, teacher training, pedagogy, and assessment (Kozma,2000).ICT is an effective tool that if integrated successfully forms a key pillar of education training (Tomar and Kumari, 2005). There is a growing interest in using computers at the secondary level to improve instruction which involves a variety of applications, mainly utilizing Internet access (Murphy, Anzalone, Bosch and Moulton, 2007) and create the opportunity to exchange ideas, consult experts, take students on virtual field trips, and access online libraries (Wartkins, 2009). According to Spence and Smith (2009) ICT-enabled communications build human capabilities and freedoms and also offer students the opportunity to learn how to use electronic tools to access information and develop research skills in solving problems. United Nations and the World Bank reported that ICT can increase access to education network for students, train teachers and broaden availability of quality educational material for emerging global economies (World Bank2003).

Statement of problem

The researchhasrevealedthatteachersdonotmakerealuseofICTsattheirdisposalhence weak integration and usage in classroom activities and in teaching and learning. The study attempt to find and create the factors that affect the integration and use of ICTs in primary schools in Sambhal district.

Definition of terms

Application of ICT: use of ICT to intensify direction and produce well to do environment to help each student to grow understanding and critical thinking.

Information communications technologies: includes technologies both old (for example radio, television, print, video) and newer technologies for example (internet, virtual reality, projector, mobile phones etc) that are planned to realize information processing and communication.

Purpose of the study
The purpose of the study was to establish teachers ICT knowledge and skills as the factors affect the use of ICT in teaching and learning in primary schools in sambhal district.

Objectives of the study
1To determine the level of teacher's ICT knowledge and skills in application of ICT in teaching and learning in primary schools in Sambhal district.

Research question
In what ways do the level of teachers' ICT knowledge and skills influence the application of ICT in teaching and learning in primary schools in Sambhal district.

Significance of the study
The findings of the study would help to understand that Teachers ICT knowledge and skills as the factors affecting the use of ICT in teaching learning process.

Limitation of the study
The data was collected from randomly selected primary schools in sambhal district of Western Uttar Pradesh.Only primary schools teachers are considered for this study.

LITERATUREREVIEW

Introduction
Investment in education is essential to narrowing the data gap and is key to the event of the capability for group action datainto social and economic activities and for collaborating in today digital economy. We are living in the digital age and hardly any aspect of human attempt can be effectively carried on without ICTs (UNESCO2008). UNESCO report (2008) reveals that ICTs are engines for growth and tools for empowerment and they have profound implications for education change and improvement.

ICT knowledge and skills
Teacher professional development is a crucial component of the educational improvement (Tin 2002). Thus the teacher pre-service and in-service training in ICT is a must for proper integration of ICT in the education system in any country. More to this the teacher is responsible for establishing the classroom environment and preparing the learning opportunities that facilitate students' use of technology to learn, and communicate (UNESCO 2008). Research finding have revealed that most teacher training courses focused on basic computer operations rather than advanced computer skills and subject-specific pedagogical applications (Tin 2002).
Use of new technologies requires new teacher roles, new pedagogies, and new approaches to teaching and learning. Before teachers have developed the ability to achieve all of the above, they must have a comfortable level of ICT skills. Unless lecturers area unit performing at a snug level of ICT skills and data, they will be unable to use ICT as a primary tool for teaching and learning across the curriculum. Teachers need to be competent and confident users of hardware and software, to understand how to organize the classroom to structure learning tasks so that IT resources become a necessary associated integral a part of learning instead of an add-on technical aid" (*ibid.*). Teaching becomes a method to initiate, facilitate, and sustain students' self-learning and self-actualization; so, academics ought to play a job as a supporter who supports students' learning. The focus of teaching is to arouse students' curiosity and motivation to assume, act, and learn. The change from the traditional chalk-n-talk pedagogy to new modes of pedagogy within secondary schools might introduce much uncertainty which tend to induce teachers' anxiety and cause them to feel frustrated in work. Hence many teachers have been found to offer stiff resistance to change involving technology intervention, technology integration and technology incorporation (Albirini2007).Research findings indicate that the use of ICTs alone does not change traditional teaching practices and that ICTs need to be supported by innovative pedagogic techniques to enhance students' self-learning and activeinteraction.

METHODOLOGY OF THE STUDY

Introduction

The chapter describes the methodology of the study. Research design, population, sample, research instruments, validity and reliability of the instruments and data analysis technique.

Research design

Descriptive survey design was used to established the factors that are influencing the integration and the use of ICTs in teaching and learning in primary schools in Sambhal district. The study aimed at collecting opinions from the teachers about factorsinfluencingadoptionofICTinteachingandlearning.Questionnaires enabled the researcher to collect the primarydata from primary school.

Target population

In Sambhal District there are 130 Primary schools, 15 government schools and 15 private schools were selected at random. Researcher were selected 90 teachers from this primary schools.

Sample design and samplingprocedure

Stratified random sampling was used to allow full participation of the schools.30 schools made up the sample size representing 23% of the total population.Three teachers were randomly picked to be the respondents in each sample school. This made a total of 90 respondents.

Table1: Sample of School and Teachers

School types	Total	Sample size	Percentage
Government	51	15	29.41%
private	79	15	18.98%
Total	**130**	**30**	**23.07%**
Total Teachers	350	90	25.71%

Researchinstruments

The questionnaires were wants to collect knowledge from the academics. The instruments were piloted in two schools and the procedure repeated in two weeks. The Schools that were used in the pilot study are excluded from the main study.

Validity of the instrument

Validity was established through close consultation and expert judgment of the supervisors; they verified the validity of the research instruments used in the study.

Reliability of the instrument

Test-retest method was used to test the reliability and validity of the instruments. Test-retest technique involved administrating the same instrument twice to the same group within two weeks. Reliability correlation coefficient (r) was calculated using the spearman rankorder. A correlation (r) of 0.76 was obtained.

Data analysis and presentation

The data collected was analyzed using SPSS. Descriptive statistics are used to present the results of the study.

DATA ANALYSIS, PRESENTATION AND DISCUSSION

The study highlights ICT knowledge and skills in application of ICT in Teaching learning in Primary schools in Sambhal district.

Gender distribution of the respondents

The researcher targeted 30 primary schools .Out of which 15 are government primary schools and 15 are private primary schools. This means government and private primary schools are equal. The research targeted 90 teachers who responded to the questionnaire. Out of the 90 teachers 50% were male while 50% were female. This means male and female teachers are equal.

Level of ICT training

The table below shows the level of ICT training among the teachers who took part in the study.

Table2: Level of ICT training

Level of ICT training	Frequency	Percent	Cumulativepercent
No education about ICT	23	25.5	25.5
Proficiency ICT course	49	54.4	80
Diploma in ICT	18	20	100
TOTAL	**90**	**100**	**100**

This showed that an enormous share of the academics have the flexibility to use the computers though their ICT skills don't seem to be thus advanced.

The impact of using ICTs in teaching andlearning

The investigator want to perceive what were the views of the teachers in use of ICTs in teaching-learning.

Table3:Impact of ICTs application on teaching and learning

Impact of use ICTs in teaching and learning	SA	A	U	D	SD
There is increased use of software applications	39	31	15	9	6
There is increased teaching -learning materials in theinternet	37	44	8	8	3
ICT would improve the presentation of content in the class	47	43	8	2	0
The use of ICTs would improve output in class	35	49	9	6	1

There is increased use of software applications in general where 31% agreed and 39% strongly agreed.the teachers conquered that there is increased teaching-learning materials in the internet where 37% strongly agreed, 44% agreed. The teachers agreed that ICT would improve the presentation of content in class where 47% strongly agreed, 43% agreed. In addition, 35% strongly agreed, 49% agreed that ICTs would improve classoutput.

Discussion off indings

The use of ICTs in class has the potential to improve the presentation in class; but there is limited use of ICTs in the Primary schools. Insufficient amount of pre-service training: the teacher training programs have not adequately incorporated ICT training in the teacher training programmed. This is because most of the teachers agreed to that they have limited pre-service training before they are deployed in the schools.

ICT knowledge is highly obsolete teachers need regular refresher courses to keep them up-to-date with the latest technology and technological changes. Poor training had created resistance to change involving use of technology in teaching and learning as was also observed by Albirini (2007).

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Introduction

This chapter presents the outline of the study findings, discussions, conclusions and recommendation of the analysis. The chapter also contains suggestions of related studies that may be carried out in thefuture.

Summary of the study findings

The study findings have revealed that integration and use of ICTs in the primary schools in Sambhal district of Uttar Pradesh is affected by so many factors.Teachers have poor pre-service coaching in ICT as a result of solely only a few have a certificate in ICT. This is coupled by lack of enough time for in-service training and a high teaching load which leaves them with very little time to prepare the teaching and learning materials for use in class. The researcher concludes that primaryschools teachers had limited ICT knowledge and skills characterized by inadequate time for in-service courses for teachers. There has been limited use of ICTs in class presentation in primary school.

Recommendations

The ministry of education should develop pre-service and in-service staff training programmed that are tailored to the school programmed tokeep teachers up to date with the technological changes which will promote proper integration of ICTs in teaching and learning.

Suggestions for further studies

1. This study was carried out in one district only; a similar study could be carried out in the other district also.

2. A study could be carried out to find out the others factors that influence the use of ICT in the primary schools.
3. A study can be carried out to determine the cost- benefit analysis of usingICT in primary schools.
4. A comparative study can be carried out on the impact of using ICT inPrimary school performance**.**

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