INTEGRATION OF INFORMATION AND COMMUNICATION TECHNOLOGY (ICT) IN THE ELEMENTARY SCHOOLS OF ANAND

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Abstract

Information and Communication technology (ICT) has remained a buzz word in arena of education since the last decade. Its effectiveness in general and teaching learning in particular has been proved by numerous educational researches conducted. It has thus remained a major area of research in the last few years. It is now becoming imperative for the schools to impart education through use of ICT. Consequently, the government has launched various policies and plans to promote use of ICT in school education through a variety of ways such as developing infrastructural facilities, giving training to school teachers, awarding incentives for innovations in use of ICT and so on. To what extent, these physical facilities and training vis-à-vis integration of ICT in education have yielded positive results in elementary school education system needs to be investigated. The researcher conducted the present study to keep in mind this question.

Keywords: *Information and Communication technology (ICT). Upper Elementary schools, Lower elementary schools*

Information and Communication Technologies (ICT) have become integral part of today's life. Human life is facilitated and made comfortable due to use of ICT. Almost all arenas of society have realized benefits yielded due to effective integration of ICT may be banking, transportation, and communication and so on. This has necessitated bringing reforms in various aspects of educational through use of ICT especially teaching and learning and school administration. Integration of ICT is normally understood as using computers in education field. However, it includes simple audio visual aids such as the transparency and slides, tape and cassette recorders, radio; video cassettes and television; and film, too. The new form of ICT extends use of satellite and wireless technology and the Internet. However, using computers for performing variety of educational endevours is generally viewed as integration of ICT in education. There are various reasons why integration of ICT can bring positive results in school education. ICT is useful for personalized learning; a learner can at one's pace. It creates opportunities for interactive learning, provides audio and visual experiences which contribute significantly in enhancing learning. For instance, listening to the speeches of freedom fighters while reading about freedom movements can help the students associate better with the freedom fighters. The entire teaching-learning process gets enhanced with the appropriate use of ICT. ICT caters to the needs of different types of learners. In view of Freedman (2011) 'ICT enhances pupils' levels of understanding and attainment in other subjects. It can provide both the resources and the pedagogical framework for enabling pupils to become effective independent learners.' He illustrates that computer programs are available that adjust themselves to the pupils' level and then set appropriate tasks and give feedback on performance.' Similarly, it is a handy tool in the hands of the teacher, too. S/he can easily enriches learning experiences, creates opportunities for learners to learn on their own, uses multiple methods of fostering learning among learners using ICT. The process of school administration can also be made more effective and stake holders oriented through effective use of ICT. Sansanwal (2009) while describing use of ICT states that 'The ICT being the latest, can be used both at the school and higher education levels in the areas such as teaching, diagnostic testing, remedial teaching, evaluation, psychological testing, development of virtual laboratory, online tutoring, development of reasoning and thinking and instructional material development.' Thockchom (2013) also comments that "ICT lays foundation for long life learning and personal development, because among other things it also develops the digital competence and technical competencies which are needed for employment, education, self development and general activities in the modern society." There are numerous studies that focused on effectiveness of ICT based instruction. For instance, the studies by Das (1998) Thatte (1998), Khirwadkar (1999) and Zyoud (1999). Thus, effective integration of ICT can bring lot of positive change in school education. However, its integration depends on availability of physical resources and well trained teachers in schools. The government has realized need of making physical resources available in elementary schools in relation to ICT. And also giving training to teachers use ICT in elementary schools. The schemes like ICT in schools includes establishing smart schools in the country, drafting ICT Policy and also a National Award for Teachers using ICT for innovations in Education. There is a need therefore to evaluate the present status of ICT in terms of available physical resources and trained work force of teachers in elementary schools. *Integration of ICT in education:* It means using Information and Communication Technology related tools for undertaking any educational endevour. *Lower elementary schools:* The lower elementary

schools are the schools imparting education from class 1 to 5 only and that run by District Panchayat body, Anand.

Upper elementary schools: The Upper elementary schools are the schools imparting education from class 1 to 8 and that are run by District Panchayat body, Anand. The study is delimited to the lower elementary schools and upper elementary schools of Anand run by the District Panchayat Body, Anand

Objectives

To study availability of physical resources in elementary schools of Anand in relation to ICT.

To study availability of number of teachers trained in elementary schools of Anand in relation to integration of ICT

To study integration of ICT in elementary schools of Anand in relation teaching learning process

To study integration of ICT in elementary schools of Anand in relation to administrative process

To study the plans of elementary schools of Anand for integrating ICT in schools for the academic year 2013-14

To study problems faced by the elementary schools of Anand for integrating ICT in schools

Research Questions

How are the infrastructural amenities in elementary schools of Anand in relation to ICT?

What is the number of the trained teachers in elementary schools of Anand who have been given training in integration of ICT especially computers.

How is ICT integrated in teaching learning process in elementary schools of Anand ?

How is ICT integrated in administrative process in elementary schools of Anand ?

Are there plans of the elementary school principals for integration of ICT in schools for academic year 2013-14?

What are problems faced by the elementary schools of Anand vis-à-vis integration of ICT in schools?

Significance

Looking at the growing role of ICT in human life in general and education in particular , it is implied that it is to be integrated effectively in schools and particularly at the elementary level so as the maximum benefits can be yielded. Such studies have lot of relevance for the reason that large amount of the money is spent by the government for infrastructural developments with respect to ICT in elementary schools. To what extent the resources generated in schools are functional and fulfilling the objectives set forth in the elementary schools, needs to be investigated. Similarly, elementary school teachers are provided training in various areas related to integration of ICT in schools by a variety of agencies. To what extent teachers are actually practicing the training inputs needs to be studied. The study is also relevant and important for the reason that it would investigate the kinds of problem that are faced by the elementary schools in using ICT resources. There are studies conducted to study status of ICT in schools. Chamnan (2004) studied availability and utilization of educational media in Secondary Schools in Thailand. Moreover, the effectiveness of educational programme also investigated upon. Samal (2000) studied effectiveness of the educational television programmes of *Doordarshan* with reference to school achievement of the learners. All these studies illustrate how important it is necessary to assess utilization of ICT resources in schools.

Research Design

The present study is a descriptive survey study. The population for the present study comprised of all the lower and upper elementary school principals or main teacher of the eight blocks of the Anand district. The Borsad block of Anand district was selected randomly. 50 elementary schools (20 lower elementary schools and 30 upper elementary schools) from Borsad block of Anand district was selected through random sampling technique. The investigator studied the books and prepared the tool for the data collection and validated the same from the experts. The questionnaire was prepared that consisted of both open ended and closed ended items. The questionnaire was administered to the school principals or main teachers to collect the data. The data obtained were analyzed both quantitatively and qualitatively. The data Content analysis and frequency and percentage were used to analyze data.

Findings

The upper elementary schools in Borsad block of Anand district in comparison to lower elementary schools are well equipped in terms of physical amenities. There is more number of teachers trained in use of computers in education. Almost all the upper elementary schools selected had computer lab facilities. The upper elementary schools teachers who received training in use of computers admitted to have been using computers for teaching learning purposes. More than half of the upper elementary school teachers had been trained in the use of computers out of which nearly forty percent of upper elementary school teachers were using computers in teaching. Nearly thirty percent teachers were good at using computers in teaching. This indicates that training inputs received by the teachers are being used by the teachers in schools. However, it also indicates that nearly half of the upper elementary teachers are yet to be trained in use of ICT especially computers. Integration of ICT in teaching learning process in upper elementary schools in comparison

to lower elementary schools is more as the later has limited physical amenities. The ICT is integrated especially for teaching tune of the songs, stories, mathematical operations, scientific experiments. However, during the informal interviews with the principals it was observed that computer teaching mainly relies on the computer tutor appointed by the government; the teachers of the schools found reluctant in using computers for themselves as well for teaching the same to students. ICT especially computers for school administration is fairly used in elementary schools. . Computers are used for preparing monthly pay slips, preparing students' profile, examination and evaluation sheets and reports of various school activities, and also for giving birth date certificate, giving bonafied certificate and so on. Besides, the school principals of the elementary schools of both lower and upper mainly looked for system's assistance to promote use of ICT in schools. The elementary school principals did not envision or has placed plans for integration ICT in schools for the year 2013-14. Some principals of the elementary schools opined that they would make time table for computer practice. The problems in relation to integration of ICTs in schools are centered on use of computers. The schools face problems due in not having permanent tutors for teaching computers, LINUX as operating system in computers being not user friendly, arrangement of the computer room-not dust free, network connectivity problem, and also lack of skills on the part of teachers to use computers in general.

Conclusion

There is a growing need for schools to impart education through use of technology. This would require school teachers to be better equipped with digital skills. The government will have to make more rigourous attempts to ensure that almost all under the umbrella of school education receive due training in integration of ICT periodically especially at the elementary level. And more importantly implement and accelerate more rigourous monitoring system so as to ensure that the training inputs received in use of ICT are actually used by school teachers and administrators. The school personnel especially principals should own up the responsibility for institutionalizing use of ICT. Teaching of use of computers should become a shared responsibility of all school teachers. It needs not to be confined to only computer tutor who visit the school once or twice a week. The schools will also have to envisage plans for each academic year for better utilization of available existing ICT resources and also for creation of ICT resources through community support. Some of the elementary schools in Gujarat have already been successful in receiving community support for availing ICT resources for the schools.

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