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STUDY OF OPINION OF JUNIOR LECTURERS TOWARDS EFFECTIVE USE OF ICT

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ABSTRACT

Globalization and technological change—processes that have accelerated in tandem over the past fifteen years—have created a new global economy "powered by technology, fueled by information and driven by knowledge." The emergence of this new global economy has serious implications for the nature and purpose of educational institutions. As the half-life of information continues to shrink and access to information continues to grow exponentially, schools cannot remain mere venues for the transmission of a prescribed set of information from teacher to student over a fixed period of time.

Keywords: ICT, eLearning, ICT usages.

INTRODUCTION

Information and communications technology or information and communication technology, usually called *ICT*, is often used as a synonym for information technology (IT) but is usually a more general term that stresses the role of telecommunications (telephone lines and wireless signals) in modern information technology. ICT consists of all technical means used to handle information and aid communication, including computer and network hardware as well as necessary software. In other words, ICT consists of IT as well as telephony, broadcast media, and all types of audio and video processing and transmission. ICT is often used in the context of "ICT roadmap" to indicate the path that an organization will take with their ICT needs. The main purpose of ICT in Education means implementing of ICT Equipments and Tools in Teaching-Learning process as a media and methodology. The purpose of ICT in education is generally to familiarize students with the use and workings of computers, and related social and ethical issues. ICT has also enabled learning through multiple intelligence as ICT has introduced learning through simulation games; this enables active learning through all senses.

Although India is one of the biggest higher educational systems in the world, it has more than 300 University Level Institutions. It has 15,000 Colleges, Nine million students and half a million teachers. But there are main basic problems as given below:

1. India still has a large population of illiterates- 302 million above age of six years.
2. Female illiteracy is as high as 45.8 (Census 2001).
3. Rural illiteracy is about 43%.

4. A high dropout rate,
5. Low rate of girl child education;
6. Inadequate teacher to pupil ratio,
7. Weak infrastructure and financial resources.

In brief there are three dimensional Challenges.

1. Education for all ages
2. Education of in school and out of school people.
3. Education in various occupations

REVIEW OF LITERATURE

Golani T.P., (1982) conducted the study to create awareness among the teachers & headmasters of secondary schools about the importance of audio-visual aids and to help the raising academic standard in secondary schools in Thane district. The major findings of the study were: (1) Schools that were suited in urban areas and the ones which were conducted by rich societies possessed audio-visual aids. (2) The only few teacher used audio-visual aids. (3) The teacher who had been trained to use audio-visual aids were inadequate in the number. (4) The mostly audio-visual aids were broken-down condition. (5) There were lacks of proper training. (6) There was lack of availability of proper software.

Nagaraju C.S. (1983) conducted the study on extent of utilization of school broadcasts and to utilizing the programs along with opinions of the teachers. The major findings of the study were: (1) A few school made arrangement for listening to radio broadcasts. (2) Interviewers' visit to non-responding school revealed that no school made arrangement for listening. (3) A few schools made arrangement for listening to radio broadcasts facilities through loudspeakers. (4) Mostly school had non-working conditions of radio sets.

Wad V. (1984) conducted the study on educational television in terms of educational utility to students & teachers and to the study of attitude, views & opinions of high school teachers towards educational program given in radio & television. The major findings of the study were: (1) the school programs were liked by the students for their variety as to change in learning process. (2) The children were mostly influenced by school programs. (3) The school broadcast gave the school programs that were excellent in contents. (4) School broadcast programs were also efficient in rural area for learning. (5) School broadcast programs were fair in their contents. Singh R.D. (1991) conducted the study to see the effectiveness of computer assisted instruction (CAI) in teaching mathematics. He found that students who used the computer score significantly higher than those taught through the conventional method.

Mohanty, P.C. (1998) took up a study of ETV programme for primary school children. The major findings of the study were: (1) He found that children exposed to ETV programmes had

superior scholastic attainment as compared to children of non-exposed group. (2) The greatest achievement was in respect of language. Panda S.C., (2000) conducted the study on degree of attainment of cognitive skills through Computer Assisted Learning (CAL). The major findings of the study were: (1) CAL resulted in greater learning achievement in all hierarchical of cognitive domain. (2) Male students were found to be superior to female in learning physics.

Singh B., (2005) conducted the study on comparison between the effectiveness of computer assisted instruction (CAI) over the teaching method tissues & cell in teaching. The major findings of the study were: (1) both methods were effective in enhancing the learning about cell and tissues. (2) While lecture method was more effective than CAI for teaching cell, CAI was more effective than others for teaching tissues.

ICT TRAINING INPUTS FOR TEACHERS AND TEACHER- EDUCATORS

For the successful implementation of ICT, teacher trainees, teachers and teacher- educators need to be trained in the following dimensions. The commercially available training programs are designed to provide exposure only to system software, some of the application software and the basics of internet.

1. Awareness phase: The input should be to make the teachers aware of the importance and possibilities of ICT-the current trends and future projections.

2. Learning theories and technology integration: Traditional and modern view of learning, shift from teaching to learning, constructivism, role of ICT in lifelong learning.

3. Basic hardware skills : Hands on experiences in operating a) the PC and laptops-switching on, shutting down, and networking, b) storage devices- using floppy drive, CD ROM drive, flash drive, and burning CD-ROM , c) output devices-using printers and speakers, d) input devices-using keyboard (Including shortcuts), mouse, modem, scanners, web cam, digital camera, camcorders, date loggers and d) display devices- data projectors, and interactive white boards.

4. Understanding system software: Features of desktop, starting an application, resizing windows, organizing files (Creating, editing, saving and renaming), switching between programs, copying etc.

5.Using application/productivity software: Word processing, spreadsheet, database, presentation, publishing, creation of Portable Document Format (PDF) files, test generation, data logging, image processing etc.

6. Using multimedia: Exposure to multimedia CD ROMs in different subject, installing programs, evaluating CD ROMs, approaches to using CD ROMs, creating multimedia presentations.

7. Using internet: e-mail, communities, forums, blogging , wiki: subscription to mailing lists, e-mail and internet projects, web searching strategies (navigating, searching, selecting, and saving information) videoconferencing, designing web pages, freeware and shareware,

evaluating website resources, virtual fieldtrips, learning opportunities using the web, and netiquette.

8. Pedagogical application of ICT tools: Specific use of application software in different subject, appropriate ICT tools and pedagogy, unit plan integrating ICT tools, approaches to managing ICT-based learning groups, assessment of learning, electronic portfolio and assessment rubrics, creating teacher and student support materials, supporting students with special needs.

9. Introduction to open source software: Concept, types, advantages, working on open sources application software.

10. Social, legal, ethical and health issues: Advantages and limitations of computer use, privacy violations, copyright infringement, plagiarism, computer security (hacking, virus, misuse, abuse and staying safe) healthy use (seating, light, sound, radiation, exercise)

11. ICT for professional and personal productivity: ICT for administration, record keeping, reporting and transfer of information, attendance, research, careers in computers and professional development opportunities.

As an advanced training website development, installation and use of server based applications, training in course management system, e learning course content development using various authoring tools, audio/video /image editing, animation etc. can be introduced. In addition to the hands on experiences every training program could include an ICT awareness /familiarity quiz, exhibitions of ICT books and multimedia CD ROMs by commercial agencies, poster session on success stories, case study presentations and analysis, ICT based demonstration lesson in the schools (whole class, small group, internet based, etc) exhibitions and presentations by commercial agencies on emerging technologies.

TEACHER EDUCATOR' INITIATIVES

Whatever may be the inputs in the training and however well designed it is, the transformation can't be achieved without the leadership, commitment and initiatives of the teachers and teacher educators, both could take up initiatives like:

- Self-learning using the tutorials available on the net, or print medium.
- Hiring an ICT expert by a group of teachers/teacher educators
- Enrolling for online professionally development courses. There are many websites offering free training modules.
- Enrolling for the best commercially available ICT training programs
- Coaching by a colleague-Mentoring
- Attending ICT training courses, seminars, conferences and workshops.

- Communities of teachers' collaborative groups to integrate ICT into their curriculum (same subjects, different subjects, same school/college, different school/college)
- Online learning by means of videoconferencing, discussion forum, chat, blogging etc.
- Visiting institutions where the ICT is already being integrated.
- Action research trying out various models of technology integration and publishing the result of the same.
- Membership and active participation in national and international associations, whose primary concern is technology. The organizations like international society for technology in education (ISTE), All India Society for Electronics and Computer Technology (AISECT), Society for Educational Technology, Research and Development (SETRAD) etc. could be considered.
- Take up diploma or Certificate courses on ICT offered through distance mode by national or international universities and organizations. The University of Hull currently offers a course "M Ed. In e-learning" through online mode.
- Exploring the possibility of faculty exchange program to get placed in an organization where the ICT integration in already in place.
- Taking up short-term or long-term projects related to ICT from ERIC, UGC, and ICSSR. This may be in collaboration with the schoolteachers
- Keeping up-to-date with the latest developments in ICT through journals, magazines, newspapers and the internet.
- Teacher educators modeling the ICT integration in their academic work.
- Planning and implementing ICT in-service training programs for schoolteachers- the best way to learn is to teach.
- Creating a pool of ICT competent past teacher trainees and involving them in the training programs.

Designing and implementing self financing certificate course in ICT for in-service teachers.

EDUCATIONAL IMPLICATIONS

Any research effort must have some bearing on the theory or practical of the discipline to which it belongs. The results of the present study have, therefore to be viewed from this angle as to how much they contribute to the existing knowledge. It should be admitted at very outset that being limited in scope and with some natural limitations a humble effort like the present one; one cannot have for reaching generalization to recommend any revolutionary changes in its subject field.

The result of the study leads support to above mentioned functionaries of educational fields to draw a demarcation line between urban & rural Sr. Sec. School and to frame policies and programs to improve teacher effectiveness and add to the knowledge of the teacher and students how to improving their academic performance. The study also helps the teachers and learners to achieve information and make it instantly available when needed.

FUTURE SCOPE

One of the outcomes of conducting any study should generally also be to generate avenues for future researchers or to point out the areas it opens for future researched having completed this study, the researchers was in the position to learn what improvement could be made, at what stage what could be more appropriate. But this new insight gained in course of working on this study could not be utilized in this very study as it was not possible to change the strategies in mid of the course. Hence, it was thought proper to layout all these points as part of this research report so that future researcher in this area may be benefited. Some suggestions are given as below for widening the future scope.

- A similar study can be undertaken on larger sample or areas.
- Investigator's study was conducted only in Jind district. It may be extended to other district in India.
- A similar study can be undertaken on different socio-economic status group.
- A different type of test can be used for the similar study.
- It may be extended to any other physiological factors.

Finally, it is hoped that study may generate more useful follow-up work.

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