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Abstract

Information Communication Technologies (ICT) are a part of our world and we use them everyday. ICT represents an important source of information about us and others, as well as about local and world events. A nation's economic well-being depends on the effective use of ICT. Teachers are important resources for modernization and change in education system. ICT will also require a modification of the role of the teacher, who in addition to class-room teaching will have other skills and responsibilities. Besides that ICT can also be very attractive too for providing educational opportunities to various learners. Basic aim of ICT in education is to utilize its equipment and tools in teaching and learning process as a medium and methodology.

Keywords: Information Communication Technology (ICT), Pedagogy, Potentials, Advantage , & Reservation of (ICT), Research Report.

A great deal of research and development has been conducted in order to bring information and communication technology (ICT) to its current state of art. ICT was originally intended to serve as a means of improving efficiency in the educational process (Jones & Knezek, 1993). It has been shown that the use of ICT in education can help improve memory retention, increase motivation and generally deepen understanding (Dede, 1998). With recent developments and advances, technology in education is virtually a new source of concern for educators, teachers & students. Technology (1) is successfully utilized in resolving many of our problems hence its success is generalized to the teaching learning situations. ICT are diverse set of technological tools and resource used to communicate, and to create, disseminate, store, and manage information (2) that dynamically changed every aspects of life. ICT has emerged as a powerful tool for providing educational opportunities to various learners in both formal and informal system. Influences of these technologies have been felt in every domain including education sector. Basic aim of ICT in education is to utilize its equipment and tools in teaching and learning process as a medium and methodology. Integration of ICT in education can be achieved through ICT as a subject, or using as a teaching tool (e.g. computer aided learning), administrative and automation tool and most importantly as a medium of knowledge exchange. Potential of ICT in education include facilitation in the acquisition and absorption of knowledge, by offering developing countries unprecedented opportunities to enhance educational systems, improving policy formation and execution, and widen the range of opportunities for business and the in poor. (3). Proper and scientific integration of ICT can direct the education system from teacher-centric pedagogy to learners-centric pedagogy as represented the following table. (Table 1).

Table 1 : Overview of Pedagogy in the Industrial versus the Information Society(3)

Aspect	Less (pedagogy in an industrial society)	More (pedagogy in an information society)
Active learning	Activities prescribed by teacher	Activities determined by learners
	Whole class instruction	Small group
	Little variation activities	Many different activities
	Pace determined by the programme	Pace determined by learners
Collaborative	Individual	Working in teams
	Homogenous groups	Heterogeneous groups
	Every one for him/herself	Supporting each other
Creative	Reproductive learning	Productive learning
	Apply known solutions to problems	Find new solutions to problems
Integrative	No link between theory and practice	Integrating theory and practice
	Separate subjects	integration between subjects
	Discipline based	Thematic
	Individual teachers	Teams of teachers
Evaluative	Teacher-directed Student-directed	Teacher-directed Student-directed
	Summative	Diagnostic

Enabling factors

Lesson learned from introducing ICTs in education need to be shared.

Like Bluetooth enabled mobile phone. As the introduction of ICTs to aid education is often part of a large change or reform process, it is vital that successful uses of ICTs are promoted and disseminated.

Introducing ICTs takes time. Adequate time must be allowed for teachers to develop new skills, explore their integration into their existing teaching practices, curriculum and undertake necessary additional lesson planning, if ICTs are to be used effectively.

A variety of changes must be implemented to optimize teacher use of ICTs. Shifting pedagogies, residing the



curriculum and assessment, and providing more autonomy to the schools help to optimize the use of ICTs. With sufficient enabling factors in place, teacher can utilize ICTs in as 'constructivist' a manner as their pedagogical philosophies would permit.

Potential positive approach for child's competencies ICT is not only an educational tool, but also a supporting one, because it helps to develop children with special needs and behavioural problems.

Besides that, it lays the foundation for long life learning and personal development, because among other things it also develops the digital competence and technical competences, which are needed for employment, education, self development, and general activities in the modern society.

The Manipur Experience

An attempt was done for qualitative analyses for different problems encountered in introducing ICT in school education in Manipur and to provide suggestive measures. Information and opinions were collected through non-participant observation, open ended interview with government officials, agencies and teachers involved in ICT implementation. Both primary and secondary data related to ICT in Manipur were also studied.

Sarva Siksha Abhiyan(SSA) and Rashtriya Madhyamik Abhiyan (RMSA) which were implemented at various levels in Manipur. Initiatives for ICT is one of the flagship programmes.

Higher academic institutions, application of ICT began many years back with radio and television programmes. These programmes have mixed reaction from people's and teaching learning community.

Education through ICT, might attract attention to teaching and student community but yet to initiate in Manipur.

Analyses in motivation and approaches for integrating ICT in education differ widely between govt. and private schools.

Govt. institutions are passive and dependent only on department sanction or govt. projects.

Private institutions have started in small scale, processing in subsequent years. This approach, though faced with competition for machine among students, provide preparedness to the teachers and authorities.

Govt. institutions died down when the project ended or fund stopped trickling.

Efficient use of computer items were observed more in private institutions.

Research report

ICT can also be very attractive for pre-school children, who acquaint with them very quickly. In a research finding in UK advantages & disadvantages of ICT usage for a

four year old child and its potential consequences for the child's development. The data was collected with the help of 130 parents. It was found that in the case of four year old children the use of ICT has its advantages and reservations and that the consequences of its usage (positive & negative) would be approximately the same.

Table 2: Numbers (f) and structural percentages (f %) of parents' answers on the question: "What consequences would a constant and a long-term usage of ICT have on your child?"

Consequences	f	f%
More positive than negative consequences	21	16,2
More negative than positive consequences	42	32,3
Positive and negative consequences would be approximately the same	67	51,5
Total	130	100,0

Source: International Journal of Humanities & Social Science Vol.2.No.3, Feb.2012.

Table 2 shows that more than one half of parents think that a long term and constant usage of ICT would have approximately the same consequence (Positive & Negative) on their child. The parents with a high degree of education or less mostly believe that the consequences would be the same. Parents are afraid of negative consequences such as Inappropriate content; Danger for physical health such as obesity, vision, impairment, carpal tunnel syndrome etc and associability or even addiction. The positive effect are gaining new knowledge and skills, usability of ICT at future schooling, employment, workplace and for those trying to find a better job and general activity of the child as an individual in the digital society.

Women and ICT: In today's job market, basic ICT skills are considered essential for people entering the workforce and for those trying to find a better job. Women need ICT to function in a digital world, to have a voice in their lives, their community, their govt. and the larger world that shares their issues and problems.

ICT policies and strategies: During the policy implementation should focus on creating competent women who can contribute in the revision of these policies document, avoiding a situation where most of the policies are formulated by patriarchal mindset.

Conclusion and way forward: ICT has lots of potentials for the future. ICT competencies are often thought of as the 'magic bullet' for employment. Efficient utilization of ICT can be achieved if we could incorporate mobile based e-content platform in integration of ICT in education. Teacher 's are the important resource for modernization and change in education system. As such, their recruitment, training, deployment and incentives need to be viewed from the angle of ICT also. In the XII five year



plan ICT based teacher education programme would create an ICT based on, demand teacher support system, including modular self, learning material. These need to be online, as well as through CD and paper based versions. ICT will also require a modification of the role of the teacher, who in addition to classroom teaching will have other skills and responsibilities. The use of ICT will enhance the learning experiences for children, helping them to think and communicate creatively. ICT will also prepare our children for successful lives and careers in an increasingly technological world. Developing ICT skills, especially in combination with the training experiences itself, can advance immigrant women's employability in several ways. In addition to developing basic digital competence, the training helps expand and reinforce their social networks while imparting confidence in their ability to continue to learn. ICT training can also help overcome language barriers, a significant factor in finding employment. The process of language acquisition can be facilitated through ICT in various ways, including e-learning as well as the non-formal learning that occurs in digital literacy courses.

Reference

- ADB.(2009), *Good practice in information and communication technology for education*. Asian Development Bank: Mandaluyong City, Philippines.
- Brosnan T.(2001) *Teaching using ICT*. In: Pachler N, editor. *Lehren und Lernen mit IKT*. Innsbruck: Studienverlag; p. 69-90.
- CABE. (2012), *Report of the Sub-Committee of Central Advisory Board of Education (CABE) on ICT in School Education*. New Delhi: Ministry of Human Resource Development.
- Devi S, Rizwaan M, Chander S.(2012) ICT for Quality of Education in India. *International Journal of Physical and Social Sciences*,2(6):542-4.
- EIU. Digital economy rankings(2010) Beyond e-readiness : A report from the Economist Intelligence Unit.
- Ezziane Z.(2010) Information Technology Literacy: Implications on Teaching and Learning. *Educational Technology & Society*,10(3):175-91.
- Garrido M, Sullivan J, Gordon A.(2012), Understanding the Links Between ICT Skills Training and Employability: An Analytical Framework. *Information Technologies & International Development*. 8(2):17-32.
- Hampel T, Keil-Slawik R. sTeam,(2001), structuring information in team-distributed knowledge management in cooperative learning environments. *Journal on Educational Resources in* 1(2):1-27
- Khirwadkar A.(2007), Integration of ICT in Education: Pedagogical Issues *Faculty of Education Review*,1(1):85-104.
- Mcgrath J.H.& Watson D.G.(1970), *Research Method and Design for Education- A text publisher Pennsylvania* – p.44.46.
- Mikre F.(2011), The Roles of Information Communication Technologies in Education : Review Article with Emphasis to the Computer and Internet. *Ethiopian Journal of Education and Sciences*,6(2):109-26.
- MHRD,(2012), *National Policy on Information and Communication Technology (ICT) in School Education*. New Delhi: Department of School Education and Literacy, Ministry of Human Resource Department, Government of India.
- Reddi, U.V., Sinha V.(2004) *ICT Use In Education*, National Policies, Strategies And Programmes. UNESCO Meta-survey on the Education Retrieved from:http://www.indg.in/primary-education/policiesand_schemes/ICT%20use%20in%20Education.pdf.
- Tinio, V.L.(2003), *ICT in Education*. New York: UNDP-APDIP.
- Vetter T, Creech H.(2008), *The ICT Sector and the Global Connectivity System : A sustainable development overview*. Manitoba, Canada: International Institute for Sustainable Development.
- Voogt J. How different are ICT-supported pedagogical practices from extensive and non-extensive ICT-using science teachers? *Educ Inf Technol*. 2009;14:325-43.
- Youssef AB, Dahmani M. (2008),The impact of ICT's on students' performance in Higher Education: Direct effects, Indirect effects and Organizational change. *Revista de Universidad y Sociedad del Conocimiento*, RUSC,5(1):45-56.
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