An Analysis upon Various Perspectives on the Use of ICT for Educational Development in India: Challenges and Opportunities

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Abstract – One of the many challenges facing developing countries today is that of preparing their societies and governments for globalization and the information and communication revolution. Policy-makers, educationists, non-governmental organizations, academics, and ordinary citizens are increasingly concerned with the need to make their societies competitive in the emergent information economy. Globalization and innovations in technology have led to an increased use of ICTs in all sectors - and education is no exception. Uses of ICTs in education are widespread and are continually growing worldwide. It is generally believed that ICTs can empower teachers and learners, making significant contributions to learning and achievement. Of the teachers interviewed on the effectiveness of ICT in education majority of them felt that introduction and use of ICT adequately will be extremely effective in children's learning and achievement. However, current research on the impacts of ICTs on student achievement yields few conclusive statements, pros or con, about the use of ICTs in education.

India as a developing country is on its path of revolution in every aspect. But the poor economy and low per capita income of families in India affects the quality of education. As India comprises 70% of rural area it is necessary to develop it so as to develop India as a whole. In this context, special concern is given to how Information Technology has proven beneficial in educational development of rural India also we provide in this study, an overview of educational progress of India over decades, facilities for rural children, projects undertaken by government to implement educational surveys and initiative measures. This paper concerns with the availability of education through Information Technology in rural India.

Information and communication technologies (ICT) have become commonplace entities in all aspects of life. Across the past twenty years the use of ICT has fundamentally changed the practices and procedures of nearly all forms of endeavor within business and governance. Education is a very socially oriented activity and quality education has traditionally been associated with strong teachers having high degrees of personal contact with learners. The use of ICT in education lends itself to more student-centred learning settings. But with the world moving rapidly into digital media and information, the role of ICT in education is becoming more and more important and this importance will continue to grow and develop in the 21st century. In this paper, a literature review regarding the use of ICTs in education was provided. Effective use of ICT for Education, along with ICT use in the teaching learning process; quality and accessibility of education; learning motivation. Learning environment. Besides, an overview of the ICT and scholastic performance.

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INTRODUCTION

Globalization and technological change have created a new global economy "powered by technology, fuelled by information and driven by knowledge (Tinio, 2002). Gaible (2009) affirms that ICT occupies a complex position in relation to globalization. The emergence of this new global economy has serious implications on the nature and purpose of educational institutions.

Thornburg (2000) notes that 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. Rather, schools must promote "learning to learn" – the acquisition of knowledge and skills that make possible continuous learning over the lifetime. Thus, the illiterate of the 21st century will not be those who cannot read and

write, but those who cannot learn, unlearn and relearn (Tinio, 2002). Information and communication technologies (ICTs) are potentially powerful enabling tools for educational change and reform processes through improving both access to education and the quality of that education. ICTs help expand access to education, strengthen the relevance of education to the increasingly digital workplace and raise educational quality by helping make teaching and learning into an engaging, active process connected to real life when used appropriately. The explosion of the Internet in the 1990s, the emergence of a variety of low-cost computing devices and increased diffusion of computers throughout society ushered in a wave of "ICT and education" policies and projects in developing economies around the world designed to prepare students to effectively engage in the information age. This requires focusing on the technology itself and placing emphasis on the practical implications of the use of ICTs to meet broad educational objectives. Educational programs, therefore, should take a holistic approach to ICT and link the educational goal of expanded ICT use to necessary associated reforms of the curriculum, student assessment system, instructive approaches in the classroom and teacher training.

ICT has become one of the basic building blocks of modern society. ICTs in education deal with the use of ICTs within educational technology. Many countries, according to UNESCO (2002), now regard understanding ICT and mastering the basic skills and concepts of ICT as part of the core of education, alongside reading, writing and numeracy.

According to Daniels (2002) ICTs have become within a very short time, one of the basic building blocks of modern society. Many countries now regard understanding ICT and mastering the basic skills and concepts of ICT as part of the core of education, alongside reading, writing and numeracy. However, there appears to be a misconception that ICTs generally refers to 'computers and computing related activities'. This is fortunately not the case, although computers and their application play a significant role in modern information management, other technologies and/or systems also comprise of the phenomenon that is commonly regarded as ICTs. Pelgrum and Law (2003) state that near the end of the 1980s, the term 'computers' was replaced by 'IT' (information technology) signifying a shift of focus from computing technology to the capacity to store and retrieve information. This was followed by the introduction of the term 'ICT' (information and communication technology) around 1992, when e-mail started to become available to the general public. According to a United Nations report (1999) ICTs cover Internet service provision, telecommunications equipment and services, information technology equipment and services, media and broadcasting, libraries and documentation centres, commercial

information providers, network-based information services, and other related information and communication activities. According to UNESCO (2002) information and communication technology (ICT) may be regarded as the combination of 'Informatics technology' with other related technology, specifically communication technology. The various kinds of ICT products available and having relevance to education, such as teleconferencing, email, audio conferencing, television lessons, radio broadcasts, interactive radio counselling, interactive voice response system, audiocassettes and CD ROMs etc have been used in education for different purposes.

The field of education has been affected by ICTs, which have undoubtedly affected teaching, learning, and research. A great deal of research has proven the benefits to the quality of education. ICTs have the potential to innovate, accelerate, enrich, and deepen skills, to motivate and engage students, to help relate school experience to work practices, create economic viability for tomorrow's workers, as well as strengthening teaching and helping schools change. As Jhurree (2005) states, much has been said and reported about the impact of technology, especially computers, in education. Initially computers were used to teach computer programming but the development of the microprocessor in the early 1970s saw the introduction of affordable microcomputers into schools at a rapid rate. Computers and applications of technology became more pervasive in society which led to a concern about the need for computing skills in everyday life. Hepp, Hinostroza, Laval and Rehbein (2004) claim in their paper "Technology in Schools: Education, ICT and the Knowledge Society" that ICTs have been utilized in education ever since their inception, but they have not always been massively present. Although at that time computers have not been fully integrated in the learning of traditional subject matter, the commonly accepted rhetoric that education systems would need to prepare citizens for lifelong learning in an information society boosted interest in ICTs.

The 1990s was the decade of computer communications and information access, particularly with the popularity and accessibility of internet-based services such as electronic mail and the World Wide Web (WWW). At the same time the CD-ROM became the standard for distributing packaged software (replacing the floppy disk). As a result educators became more focused on the use of the technology to improve student learning as a rationale for investment. Any discussion about the use of computer systems in schools is built upon an understanding of the link between schools, learning and computer technology. When the potential use of computers in schools was first mooted, the predominant conception was that students would be 'taught' by computers (Mevarech & Light, 1992).In a sense it was considered that the computer would

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'take over' the teacher's job in much the same way as a robot computer may take over a welder's job. Collis (1999) refers to this as "a rather grim image" where "a small child sits alone with a computer". However, the use of information and communication technologies in the educative process has been divided into two broad categories: ICTs for Education and ICTs in Education. ICTs for education refers to the development of information and communications technology specifically for teaching/learning purposes, while the ICTs in education involves the adoption of general components of information and communication technologies in the teaching learning process.

Information and communication technology (ICT) has become, within a very short time, one of the basic building blocks of modern society. Many countries now regard understanding ICT and mastering the basic skills and concepts of ICT as part of the core of education, alongside reading, writing and numeracy.

Education sector can be the most effective sector to anticipate and eliminate the negative impact of ICT. Technology (internet) in another side can be the most effective way to increase the student's knowledge. Being aware of the significant role of ICT (internet) in our life, especially in the educational activities, education authorities should be wise enough in implementing the strategies to empower ICT in supporting the teaching and learning process in the classroom. ICT is not just the bloom of the educational activities, but also it will be the secondary option to improve the effective and meaningful educational process.

The emergence of Information and Communication Technology (ICT) has fundamentally changed the practices of not only business, governance or education but every spheres of human endeavour. As the world population edged to 7 billion in 2011, it has profound implications in every sphere. India has a massive 1.2 billion population of which a high proportion of them are young. The demand for education in developing countries like India has skyrocketed as education is still regarded as an important bridge of social, economic and political mobility. India has innumerable challenges in terms of infrastructure, socio-economic, linguistic and physical barriers for people who wish to access education (Bhattacharya & Sharma, 2007). However, it is hoped that ICT can transform the educational scenario in the country. But then, can it address these needs and perform multiple roles in higher education to benefit all stakeholders?

The emancipatory and transformative potentials of ICT in higher education in India have helped increase the country's requirement of higher education through part-time and distance-learning schemes. It can be used as a tool to overcome the issues of cost, less number of teachers, and poor quality of education as well as to overcome time and distance barriers. Mooij (2007) states that differentiated ICT based education can be expected to provide greater reliability, validity, and efficiency of data collection and greater ease of analysis, evaluation, and interpretation at any educational level. While the world is moving rapidly towards digital media, the role of ICT in education has become increasingly important. It has transformed the way how knowledge is disseminated today in terms of how teachers interact and communicate with the students and vice-versa. Besides, it can provide networking structures transcending borders and foster empowerment amongst students.

ICT ENHANCING TEACHING AND LEARNING PROCESS

The field of education has been affected by ICTs, which have undoubtedly affected teaching, learning and research .ICTs have the potential to accelerate, enrich, and deepen skills, to motivate and engage students, to help relate school experience to work practices, create economic viability for tomorrow's workers, as well as strengthening teaching and helping schools change. In a rapidly changing world, basic education is essential for an individual be able to access and apply information. Such ability must find include ICTs in the global village.

Conventional teaching has emphasized content. For many years course have been written around textbooks. Teachers have taught through lectures and presentations interspersed with tutorials and learning activities designed to consolidate and rehearse the content. Contemporary settings are now favouring curricula that promote competency and performance. Curricula are starting to emphasize capabilities and to be concerned more with how the information will be used than with what the information is. Contemporary ICTs are able to provide strong support for all these requirements and there are now many outstanding examples of world class settings for competency and performance-based curricula that make sound use of the affordances of these technologies (Oliver, 2000). The integration of information and communication technologies can help revitalize teachers and students. This can help to improve and develop the quality of education by providing curricular support in difficult subject areas. To achieve these objectives, teachers need to be involved in collaborative projects and development of intervention change strategies, which would include teaching partnerships with ICT as a tool. According to Zhao and Cziko (2001) three conditions are necessary for teachers to introduce ICT into their classrooms: teachers should believe in the effectiveness of technology, teachers should believe that the use of technology will not cause any disturbances, and finally teachers should believe that

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they have control over technology. However, research studies show that most teachers do not make use of the potential of ICT to contribute to the quality of learning environments, although they value this potential quite significantly. Harris (2002) conducted case studies in three primary and three secondary schools, which focused on innovative pedagogical practices involving ICT. Harris (2002) concludes that the benefits of ICT will be gained "…when confident teachers are willing to explore new opportunities for changing their classroom practices by using ICT. As a consequence, the use of ICT will not only enhance learning environments but also prepare next generation for future lives and careers. Changed pool of teachers will come changed responsibilities and skill sets for future teaching involving high levels of ICT and the need for more facilitative than didactic teaching roles.

According to Cabero (2001), "the flexibilization time-space accounted for by the integration of ICT into teaching and learning processes contributes to increase the interaction and reception of information. Such possibilities suggest changes in the communication models and the teaching and learning methods used by teachers, giving way to new scenarios which favour both individual and collaborative learning". The use of ICT in educational settings, by itself acts as a catalyst for change in this domain. ICTs by their very nature are tools that encourage and support independent learning. Students using ICTs for learning purposes become immersed in the process of learning and as more and more students use computers as information sources and cognitive tools, the influence of the technology on supporting how students learn will continue to increase. In the past, the conventional process of teaching has revolved around teachers planning and leading students through a series of instructional sequences to achieve a desired learning outcome. Typically these forms of teaching have revolved around the planned transmission of a body of knowledge followed by some forms of interaction with the content as a means to consolidate the knowledge acquisition. Contemporary learning theory is based on the notion that learning is an active process of constructing knowledge rather than acquiring knowledge and that instruction is the process by which this knowledge construction is supported rather than a process of knowledge transmission. In this domain learning is viewed as the construction of meaning rather than as the memorization of facts. Learning approaches using contemporary ICTs provide many opportunities for constructivist learning through their provision and support for resource-based, student centered settings and by enabling learning to be related to context and to practice. As mentioned previously, any use of ICT in learning settings can act to support various aspects of knowledge construction and as more and more students employ ICTs in their learning processes, the more pronounced the impact of this will become. Teachers generate meaningful and engaging learning experiences for their students, strategically using ICT to enhance learning. Students enjoy learning, and the independent enquiry which innovative and appropriate use of ICT can foster. They begin to acquire the important 21st century skills which they will need in their future lives.

ICT ENHANCING THE QUALITY AND ACCESSIBILITY OF EDUCATION

ICT increases the flexibility of delivery of education so that learners can access knowledge anytime and from anywhere. It can influence the way students are taught and how they learn as now the processes are learner driven and not by teachers. This in turn would better prepare the learners for lifelong learning as well as to improve the quality of learning. In concert with geographical flexibility, technology-facilitated educational programs also remove many of the temporal constraints that face learners with special needs. Students are starting to appreciate the capability to undertake education anywhere, anytime and anyplace.

One of the most vital contributions of ICT in the field of education is- Easy Access to Learning. With the help of ICT, students can now browse through e-books, sample examination papers, previous year papers etc. and can also have an easy access to resource persons, mentors, experts, researchers, professionals, and peers-all over the world. This flexibility has heightened the availability of just-in-time learning and provided learning opportunities for many more learners who previously were constrained by other commitments. Wider availability of best practices and best course material in education, which can be shared by means of ICT, can foster better teaching. ICT also allows the academic institutions to reach disadvantaged groups and new international educational markets. As well as learning at anytime, teachers are also finding the capabilities of teaching at any time to be opportunistic and able to be used to advantage. Mobile technologies and seamless communications technologies support 24x7 teaching and learning. Choosing how much time will be used within the 24x7 envelope and what periods of time are challenges that will face the educators of the future. Thus, ICT enabled education will ultimately lead to the democratization of education. Especially in developing countries like India, effective use of ICT for the purpose of education has the potential to bridge the digital divide.

India has a billion-plus population and a high proportion of the young and hence it has a large formal education system. The demand for education in developing countries like India has skyrocketed as education is still regarded as an important bridge of social, economic and political mobility. There exist

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infrastructure, socio- economic, linguistic and physical barriers in India for people who wish to access education. This includes infrastructure, teacher and the processes quality. There exist drawbacks in general education in India as well as all over the world like lack of learning materials, teachers, remoteness of education facilities, high dropout rate etc. Innovative use of Information and Communication Technology can potentially solve this problem. Internet usage in home and work place has grown exponentially. ICT has the potential to remove the barriers that are causing the problems of low rate of education in any country. It can be used as a tool to overcome the issues of cost, less number of teachers, and poor quality of education as well as to overcome time and distance barriers.

People have to access knowledge via ICT to keep pace with the latest developments. ICT can be used to remove communication barriers such as that of space and time. ICTs also allow for the creation of digital resources like digital libraries where the students, teachers and professionals can access research material and course material from any place at any time. Such facilities allow the networking of academics and researchers and hence sharing of scholarly material. This avoids duplication of work. ICT eliminating time barriers in education for learners as well as teacher. It eliminates geographical barriers as learners can log on from any place. ICT provides new educational approaches. It can provide speedy dissemination of education to target disadvantaged groups. ICT enhances the international dimension of educational services. It can also be used for non-formal education like health campaigns and literacy campaigns. Use of ICT in education develops higher order skills such as collaborating across time and place and solving complex real world problems. It improves the perception and understanding of the world of the student. Thus, ICT can be used to prepare the workforce for the information society and the new global economy. Plomp et al (2007) state that the experience of many teachers, who are early innovators, is that the use of ICT is motivating for the students as well as for the teachers themselves. Bottino (2003) and Sharma (2003) mention that the use of ICT can improve performance, teaching, administration, and develop relevant skills in the disadvantaged communities. It also improves the quality of education by facilitating learning by doing, real time conversation, delayed time conversation, directed instruction, self-learning, problem solving, information seeking and analysis, and critical thinking, as well as the ability to communicate, collaborate and learn. A great deal of research has proven the benefits to the quality of education. Hepp, Hinostroza, Laval and Rehbein (2004) state that the literature contains many unsubstantiated claims about the revolutionary potential of ICTs to improve the quality of education. They also note that some claims are now deferred to a

near future when hardware will be presumably more affordable and software will become, at last, an effective learning tool.

ISSUES IN THE USE OF ICTS IN EDUCATION

The potential of each technology varies according to how it is used. ICTs encompass so many different things and can be used in various ways to help address varying business education challenges in Nigeira. Haddad and Drexler (2002) identify at least five levels of technology use in education: presentation, demonstration, drill and practice, interaction and collaboration. Print, audio/video cassettes, radio TV broadcasts, computers or the Internet may be used for presentation and demonstration. Video technologies, drill and practice may also be performed using the whole range of technologies. However, networked computers and the Internet have the best potential of enabling interactive and collaborative learning. The overall impact of ICTs on education requires consideration in the areas of effectiveness, cost, equity and sustainability. The educational effectiveness of ICTs depends on how they are used and for what purpose. ICT tools have been used in:

i. Enhancing access to education. Though it is difficult to quantify the degree to which ICTs have helped expand access to basic education, the television-based project is an exception. In Asia and Africa, assessments of distance learning projects at the junior secondary level using a combination of print, taped and broadcast technologies have been less conclusive, while at the primary level, there is little evidence that ICT-based models have thrived (Perraton and Creed, 2002). In higher education and adult training, there is some evidence that educational opportunities are being opened to individuals and groups who are constrained from attending traditional universities.

ii. Raising quality education. Evidence from the research on the impact of educational radio and television broadcasts on the quality of basic education suggests that these interventions are as effective as traditional classroom instruction (Hannafin and Savenye, 1993). Findings from the analysis of the Interactive Radio Instruction project provide strong evidence of the project's effectiveness in raising the quality of education (Perraton and Creed, 2002).

Assessments of the use of computers, the Internet and related technologies for distance learning have been unclear. Russel (1999) claims that there is "no significant difference" between the test scores of

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learning taking ICT-based distance learning courses and those receiving face-to-face instruction. However, Merisotis and Phipps (1999) assert that such generalizations are inconclusive; pointing out that the large number of articles on ICT-based distance learning does not include original experimental research or case studies. Other critics argue that dropout rates are much higher when instruction is delivered at a distance via ICTs. The use of computers, the Internet and related technologies, given adequate teacher training and support, can indeed facilitate the transformation of the learning environment into a learner-centred one. Since technology use is fully integrated into the larger learning system, it is very difficult to isolate technology variable and determine whether any observed gains are due to technology use or some other factor or combination of factors. The other issue to consider in determining the impact of ICTs on business education is cost. Blurton (2002) opines that educational television broadcasts and computer-based and online learning are more expensive than radio broadcasts. It is, however, difficult to ascertain whether television broadcasts are cheaper than computer-based and online learning. Determining the cost-effectiveness is difficult because of lack of data, differences in programs, problems of generalization and problems of quantification of educational outcomes and opportunity costs. With respect to computers and the Internet, Blurton (2002:18) argues that "when considering whether ICT is "cost-effective" in educational settings, a definitive conclusion may not be possible for a variety of reasons. However, when considering the alternative of building more physical infrastructure, the cost savings to be realized from sharing resources and the societal price of not providing access, ICT as a means of enabling teaching and learning appears to be an attractive and necessary alternative." The cost of a particular ICT educational application can be categorized into fixed and variable costs. Fixed costs include retrofitting of physical facilities, hardware and networking, software, and upgrades and replacement. Variable or recurrent costs include professional development, connectivity (including Internet access and telephone time) and maintenance and support which include utilities and supplies. Another dimension of cost is location or who will pay for what. In relation to computers connected to the Internet, either the school or student or both should bear the variable costs connected to operations such as maintenance, Internet service charges and other charges. In contrast, with radio programming, the learner has to pay only for a radio and a set of batteries or energy charges. However, in Nigeria where there is unstable power supply, the cost translates beyond energy charges. It includes the cost of acquiring and maintaining generator sets for use where and when there is no power supply.

Introducing ICTs raises important and serious equity issues. There is a serious concern that the use of ICTs

in education will widen the existing divisions drawn along economic, social, cultural, geographic and gender lines given the disparities in access to ICTs between different groups in a country – even between developed and developing countries. This will further marginalize groups already excluded or marginalized from existing educational practice and environments.

CHALLENGES OF THE INTEGRATING ICTS EDUCATIONS

Generally, ICTs empower teachers and learners, promote change and foster the development of 21st century skills. However, there is no one, singular strategy for determining the optimal level of ICT integration in the educational system. Significant challenges confronting the integration of ICTs in education are in the areas of educational policy and planning, infrastructure, language and content, capacity building and financing. Educational reforms through ICTs require clear and specific objectives, guidelines and time-bound targets, the mobilization of required resources and political commitment at all levels to ensure the success of the initiative. The planning elements for ICT involve a thorough analysis of the present state of the educational system; the specification of educational goals at different education and training levels, as well as the different modalities of use of ICTs that can best be utilized in pursuit of these goals; the identification of stakeholders and the harmonizing of efforts across different interest groups; the piloting of the chosen ICT-based model; and the specification of existing sources of financing and the development of strategies for generating financial resources to support ICT use over the long run. The national telecommunications and information infrastructure is the foundation for a country's educational technology infrastructure. Before launching an ICT-based program, consideration must be given to appropriate rooms or buildings available to house the technology, the availability of electricity and telephony; and the ubiquity of different types of ICT in the country in general and in the educational system in particular. To enhance computer-based or online learning, there must be access to computers in schools, communities and households, as well as affordable internet service. ICT use in education should follow use in society. It is cheaper and easier to introduce a form of technology into education and keep it working where education enjoys a large-scale development by governments or the private sector.

The success of ICT integration in education depends on the development of various competencies throughout the educational system. This hinges on the teacher professional development, competency of educational administrators in using the technology, available and dedicated technical support specialists to ensure the continued viability of ICT; and content

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development units to adapt existing ICT-based educational materials for local use.

Balancing educational goals and economic realities is one of the greatest challenges in ICT use in education. ICTs in education programs require large capital investments. Business educators need to be prudent in making decisions about the models of ICT use to be introduced. They should also be conscious of maintaining economies of scale. Decision must be made on whether ICT-based learning is the most effective strategy for achieving the desired educational goals. The modality and scale of implementation that can be supported given existing financial, human and other resources must be determined.

MOST EFFECTIVE FORM OF ICT IN EDUCATION

The use of videos came across as the most effective ICT component in our teacher interviews. It was stressed by those using and wanting to use videos in educations that creativity in presentation is just as important as the use of innovative media. Educational videos now encompass multimedia CDs, interactive games, flash and 3-D animation, slide-shows (like PowerPoint), video books, digital story-telling and many other forms that imaginatively combine visuals with text and audio that can be delivered on a range of platforms. Following current discussion forums on ICT in education, it is seen that videos can be used in a range of learning environments, such as to enhance learning in classrooms, train illiterate women on basic life skills, teach children from nomadic tribal communities, and encourage children to make their own video films on Vikramshila Education Resource Society Shikshak Sammelan 2009 local issues of concern. Moreover, videos can also be made accessible to the blind, as some organizations are doing using _audio description.' Various organizations have produced videos on a range of topics including disaster management, child rights, forced migration, adolescent and gender issues and HIV and reproductive and sexual health topics.

Commenting on the ability of video to simplify complex subjects and engage children, teachers pointed out topics with strong visual contexts – like scientific evolutionary theories, planetary movements and geographical topography, geographical phenomena, biological phenomena – which can be quite difficult to grasp if taught using conventional methods – or _hard spots' in the curriculum that can be brought to life through videos. Additionally, they shared examples of films being used in regular school syllabi subjects like for social studies, science and Math's that have proved effective. While noting the positive impact videos can have on education, it was felt that educators often view the use of videos as an alien feature outside the regular curricular teaching and thus the challenge is to integrate videos into day-to-day teaching. They contended a clear policy emanating from a broad consultation on using ICT in education is necessary. If ICTs are used, teachers and schools need capacity building to recognize educational videos as an extension of the experiential aspect of learning and not merely as a visual alternative to textbooks. Teachers also identified obstacles like

- The lack of computers,

- TV sets and

- Video playback systems

in most schools and argued that a whole transformation is needed at the grassroots, requiring the collaboration of multiple agencies.

CONCLUSION

The adoption and use of ICTs in education have a positive impact on teaching, learning, and research. ICT can affect the delivery of education and enable wider access to the same. In addition, it will increase flexibility so that learners can access the education regardless of time and geographical barriers. It can influence the way students are taught and how they learn. It would provide the rich environment and motivation for teaching learning process which seems to have a profound impact on the process of learning in education by offering new possibilities for learners and teachers. These possibilities can have an impact on student performance and achievement. Similarly wider availability of best practices and best course material in education, which can be shared by means of ICT, can foster better teaching and improved academic achievement of students. The overall literature suggests that successful ICT integration in education.

Support of school administrators and, in some cases, the community, is critical if ICTs are to be used effectively. In addition, teachers must have adequate access to functioning computers (or other technologies) and sufficient technical support. Shifting pedagogies, redesigning curriculum and assessment tools, and providing more autonomy to local schools all contribute to the optimal use of ICTs in education. Very few strong examples of integration of ICT into classroom teaching learning is visible, though some schools do use the audio visual aids and integrate teaching of some lessons. Largely however, even where ICT is used in the classes, it is usually as an information source and not a part of core learning process.

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