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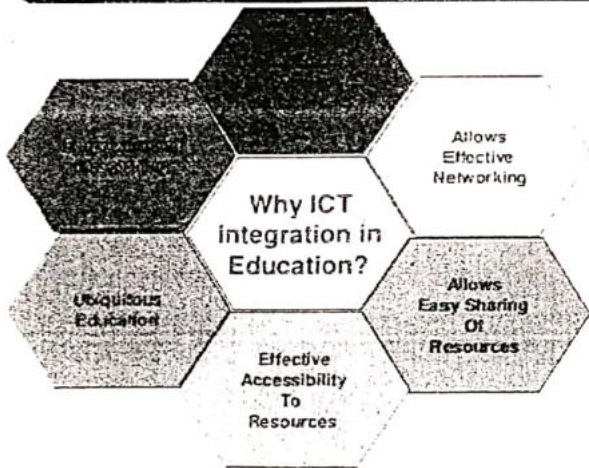
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USE OF ICT IN TEACHING AND LEARNING: A CRITICAL ANALYSIS**Bandal V.S.**

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Introduction:

Information and Communication Technologies (ICT) have recently gained a groundswell of interest, becoming a significant research area for many scholars around the globe. One of the reasons for this surge is that nature of ICT has greatly changed the face of education. For most European countries, the use of ICT, in education and training, has become a priority during the last decade; however, very few have achieved progress. Indeed, only a small percentage of schools, in a few countries, effectively used ICT to support and change the teaching and learning process in diverse subject areas. Others are still in the early phases of adopting ICT.

The ICT Test Bed Evaluation (Underwood 2006) provides evidence that many teachers use ICT to support innovative education. The report states, "New technologies that provide a good fit with existing practices, such as interactive whiteboards, are first to be embedded, but others, like video conferencing, digital video and virtual learning environments are now being incorporated, providing evidence of ongoing learning by the workforce. Training needs to continue to support innovative pedagogy."

THE IMPORTANCE OF USING ICT IN TEACHING-LEARNING PROCESS

Several studies argue that the use of new technologies in the classroom is essential for providing opportunities for students to learn to operate in an information age. It is evident, as argued that traditional educational environments do not seem to be suitable for preparing learners to function or be productive in the workplaces of today's society. She claimed that organizations that do not incorporate the use of new technologies in institutions cannot seriously claim to prepare their students for life in the twenty-first century. This argument is supported by Grimus who pointed out that "by teaching ICT skills in higher educational institutions the students are prepared to face future developments based on proper understanding". Similarly, reference reported that "what is now known about learning provides important guidelines for uses of technology that can help students and teachers develop the competencies needed for the twenty-first century". ICT originally is applied to serve as a means of improving efficiency in the educational process. Furthermore, it has been shown that the use of ICT in education can help improve memory retention, increase motivation and generally deepens understanding. ICT can also be used to promote collaborative learning, including role playing, group problem solving activities and articulated projects. ICT allow the establishment of rich networks of interconnections and relations between individuals.

THE INFLUENCE OF FACTORS IN THE USE OF ICT IN TEACHING-LEARNING

The fundamental factors influencing the use of ICT in teaching-learning have been identified by researchers. Organizational capacity as factors influencing ICT adoption and integration

into teaching. Reference identified the factors as teacher-level, school-level and system-level. Teachers' integration of ICT into teaching is also influenced by organizational factors, attitudes towards technology and other factors, claims that technological, individual, organizational, and institutional factors should be considered when examining ICT adoption and integration. Identified several factors influencing use of ICT to make teaching-learning effective which include: self-efficacy, computer motivation, computer attitudes, the attitude-behavior relation, technology integration, constructivist beliefs, ICT motivation, attitudes towards ICT in education, organization of learning, organizational climate, infrastructure and resources, teachers' educational beliefs, perceptions on ICT-related school policies, teachers' individual background, gender, teaching experience, professional development, teachers' attitudinal factors, innovativeness, technology self-efficacy (technology competence), attitude toward computers in education, socio-organizational factor, school culture, administrative support, school support, pressure to use technology.

Teachers are frequently considered to be the most important influence on classroom learning and, as such, play an invaluable role in ensuring that pupils use ICT effectively inside the school. However, there has been little or no research on exactly how much teacher training is required, how often it should take place, what kind of training is most appropriate and affordable, and what it should cover to create a teaching workforce that is motivated to use ICT in the classroom in the context of new curricula and new pedagogies. Complicating matters, the integration of ICT into education is frequently resisted by teachers and their unions, particularly in countries with an aging, underpaid teaching workforce, and where there has been inadequate training and preparation. In these circumstances, a lack of motivation to learn new skills and teaching and learning methodologies may occur, which is often compounded by feeling threatened by new forms of ICT that students will understand better than teachers do. This concern has been recognized by the Ministry of Education in India, owing to the high proportion of "older" teachers in the last quartile of their teaching career. In particular, India has concerns about a general lack of efficiency in the use of e-curriculum, which is an important focus in their education system.

ICT helps in providing a catalyst for rethinking teaching practice developing the kind of graduates and citizens required in an information society improving educational outcomes and enhancing and improving the quality of teaching and learning.

Faculty development

Teachers' professional development is a key factor to successful integration of computers into classroom teaching. Several studies have revealed that whether beginner or experienced, ICT-related training programs develop teachers' competences in computer use, influence teachers' attitudes towards computers as well as assisting teachers reorganize the task of technology and how new technology tools are significant in student learning, related technology training to successful integration of technology in the classroom. In a study of many teachers, they showed that professional development and the continuing support of good practice are among the greatest determinants of successful ICT integration, claim that

teachers' technology skills are strong determinant of ICT integration, but they are not conditions for effective use of technology in the classroom. They argue that training programs that concentrate on ICT pedagogical training instead of technical issues and effective technical support, help teachers apply technologies in teaching and learning. Research studies revealed that quality professional training program helps teachers implement technology and transform teaching practices; teachers may adopt and integrate ICT into their teaching when training programs concentrate on subject matter, values and the technology. Similarly, teachers' understanding of content knowledge and how to apply technology to support student's learning and attainment are joined to their increase in knowledge level, confidence and attitudes towards technology. Educators who integrate technology with new teaching practices gained through professional training can transform the performance of the students. Teachers who are committed to professional Development activities gain knowledge of ICT integration and classroom technology organization. Clearly, it is imperative to allow teacher trainees to apply ICT in their programs when in school in order to be able to use the Technology to supplement their teaching activities. Teachers when given time to practice with the technology, learn, Share and collaborate with peer, it is likely that they will integrate the technology into their teaching. Training programs For teachers that embrace educational practices and strategies to address beliefs, skills and knowledge improve teachers'

Awareness and insights in advance, in relation to transformations in classroom activities.

CONCLUSION

The purpose of this paper aims to bring together the findings and key points from a review of significant part of the available literature associated with ICTs for Education and ICTs in Education. This review set out to identify and evaluate relevant strategies in national and international research and initiatives related to measuring and demonstrating the effective use of ICT for education with regard to the teaching learning process; ICT and quality and accessibility of education; ICT and learning motivation, ICT and learning environment, and ICT to enhance the scholastic performance.

The rapid growth in ICT has brought remarkable changes in the twenty-first century, as well as affected its adoption and integration by teachers in teaching-learning process. The effective integration of technology into classroom practices poses a challenge to teachers and administrators. The findings of this study indicate that teachers and administrators have strong desire for the integration of ICT into education but they encountered many barriers to it.

These findings therefore have implications for training the teachers to become regular users of ICT focusing on acquiring basic ICT skills. For successful integration of ICT into teaching-learning process, it can be concluded that the factors that positively influenced teachers' and administrators' use of ICT in education include teachers' attitudes, ICT competence, and computer self-efficacy, teaching experience, education level, professional development, accessibility, technical support, leadership support, pressure to use technology,

government policy on ICT literacy, and technological characteristics. However, the presence of all factors increases the probability of excellent integration of ICT in teaching-learning process. Therefore, the training of teachers in the pedagogical issues should be increased if teachers are to be convinced of the value of using ICT in their teaching-learning process.

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