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Usefulness of ICT in the School Education: An Overview

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Abstract:

Teachers can better meet the worldwide need for the use of technology-based teaching and learning tools and facilities by integrating information, communication, and technology (ICT). Information and communication technology (ICT) is widely regarded as a key factor in Malaysia's transformation towards the country's future growth. The current Education Blue print (2013-2025) from the Ministry of Education highlights the significance of integrating technology-based instruction into the national curriculum for students of all ages. This research attempts to examine how information and communication technologies (ICT) are used in the classroom and what can be learned about their impact on both student learning and classroom instruction. Given the descriptive nature of this investigation, secondary resources have been mined for any pertinent data. In addition to these primary materials, we also made use of secondary resources such books, journals, government documents, and the internet. It follows that successful ICT adoption is essential for maximizing the benefits to both educators and learners. Therefore, the adoption and endorsement of a technology-based teaching and learning model by the school's administration are the first steps. There will be great success and advantages for both instructors and pupils if the process of integrating technology into schools is carried out correctly from the very beginning stage and the continuing maintenance is effectively supplied.

Keywords: *Technology (ICT), Communication, Administration, Learning, Facilities.*

Introduction:

The concept of "technology" has assumed great significance in the academic world in the twenty-first century. The reason for this is that in many nations, technology has become the primary means of spreading new information. Innovations in today's technologically integrated society have brought about profound changes in people's ways of thinking, working, and living (Grabe, 2007). Schools and other educational institutions that want to equip their students for success in "a knowledge society" should, therefore, think about how to include ICT into their curricula (Ghavifekr, Afshari, &AmlaSalleh, 2012).

The employment of digital means of communication in the classroom is known as "information, communication, and technology integration" (ICT integration). Teachers are viewed as the pivotal figures in the everyday implementation of ICT in classrooms, and in educating pupils for the contemporary digital environment. This is because ICT can create an atmosphere where both teachers and students may be active

participants (Arnseth&Hatlevik, 2012). Benefits from networking learning communities to meet the difficulties of contemporary globalisation are one goal of ICT integration (Albirini, 2006, p.6). Another goal is to enhance and raise the quality, accessibility, and cost-efficiency of the delivery of instruction to students. Adopting ICT is not a one-and-done deal; rather, it is a series of actions designed to provide constant back-up for instructors and researchers alike (Young, 2003).

The term "ICT integration in education" refers to the use of various forms of information and communication technology (ICT) in the classroom. The topic of ICT integration in schools, particularly in the classroom, is critical since kids are used to and thrive in a technology-based learning environment. This is because incorporating ICT into the classroom has been shown to improve instruction and student outcomes by providing students with access to a variety of learning resources and tools (Jamieson-Procter et al., 2013). It is true that technology-based tools and equipment may help students in a wide variety of disciplines, including but not limited to mathematics, physics, languages, arts and humanities, and many others, study more efficiently. In addition, ICT offers supplementary supports for both educators and students in contexts where making efficient use of computers as learning tools is a priority (Jorge et al., 2003). Technology and computers are not seen as a replacement for qualified educators, but rather as a means to enhance the learning process. The importance of ICT integration in education cannot be overstated, since it enables teaching and learning to take place not just in a traditional classroom setting, but also at a distance. However, incorporating ICT is not a one-and-done endeavour; rather, it is an ongoing learning process that fosters a more proactive classroom setting (Young, 2003).

The Conceptual Framework: In order to better understand how ICT can be used to improve the quality of education in schools, we have adapted two theories from Rogers' (2003) Diffusion of Innovations and Davis's (2003) Technology Acceptance Model (TAM) (see Figure 1). Rogers' theory may be defined as the method through which new ideas spread across a society. This takes place over time and via certain social networks. To begin integrating ICT, ICT users must first acquire "knowledge" about the first channel, which reflects features of the decision making unit. Finally, user "confirmation" that they will adopt the technology and incorporate it into their lives marks the completion of the process. User acceptance of information and communication technologies (ICT) is represented in the TAM theory by a number of factors, such as behavioural intention, perceived utility, and perceived ease of use. A technology's perceived utility is the extent to which an individual thinks its usage will improve their work performance, whereas a technology's perceived ease of use is the extent to which they think its use will be beneficial to them. In general, TAM theory was created to evaluate the value and efficiency of a system by gauging how well it performs its intended function. It is also recognised as a leading theory in the field of information systems today. Over time, however, the idea has developed to include more nuanced factors for describing why and how a user may adopt a certain technology.

Significance of the Study:

A nation's educational system is its backbone. The advancement of contemporary economics is largely attributable to educational institutions. In today's world, technology plays a crucial role in the classroom. The usage of information and communication technologies has altered the educational process in the contemporary day. In order to meet the needs of India's expanding economy, our educational system places a premium on producing highly qualified workers, but it also confronts difficulties on a more fundamental level. Organizations charged with overseeing the field of education have challenges in maintaining adequate coordination and assessment in order to raise the bar on educational delivery and quality. By making digital data more easily accessible, manageable, analysed, and sent, ICT has revolutionized how educational institutions and their administration work. As such, the current research has adequate relevance for the time being.

Objectives:

The present study has been carried out with the following objectives-

- To study the use of ICT in the process of Learning in the school education.
- To find out the role of technology in the process of teaching in the school education.
- To discuss the usefulness of ICT in the governance of school education.

Method:

Since the present study is descriptive in nature the researcher has followed the secondary sources for the required information. Different books, journals, government records and internet sources have also been for gathering information.

Discussion:

ICT in Learning:

Once upon a time, it was believed that education could only be attained via instructors, and that all educational activities revolved on the teacher. Now, education may take place even when instructors and traditional classrooms are unavailable. Only with the advent of modern means of communication has this been made feasible. A person may study whenever and wherever it is most convenient for them. There are several IT resources out there to help with this. *(Kamal, V. 2005).*These examples may be used to illustrate how educators can put ICT to good use in the classroom:

(i) Group learning: Information and Communication Technology tools helps a student to come in contact with other students, teachers experts of the subjects for better learning. He can also participate in online discussions with persons concerned and enables himself to enrich his knowledge.

(ii) (ii) Individual learning: ICT has widened the scope of individual learning. With the help of ICT a student can achieve learning according to his own will without the barriers of time and space.

(iii) (iii) Professional learning: ICT has made the students enable to get various professional courses and skills for their development according to there convenience. Different languages learning courses and skill development programmes are available on internet which can be accessed easily trough ICT tools.

(iv) Distance learning: ICT is the back bone of distance learning all the processes of modern distance learning courses depends on the use of ICT. Providing assignments and their collection, delivery of materials counselling and other works are done with the help of ICT tools.

(v) Collaborative learning: Now a days it has become easier to study in groups or in clusters with the help of ICT. Students can be united for better learning with ICT facilities. Modern ICT tools are helpful in delivery of educational content. Mobiles, telephone, computers radio, television and internet have proved better tools for learning.

Uses of ICT in Teaching:

The role of teachers in the educational system cannot be overstated. Without a dedicated educator, it would be impossible to create a more favourable learning environment. The instructor used to be the focal centre of the classroom, but things have changed. He is respected by his pupils and thought of as a friend. He facilitates learning but does not provide information. (Sharma,2011) The current era is being called the “age of knowledge explosion.” The boundaries of what can be known are rapidly broadening. A better educator is one who keeps up with the times. When doing so, ICT is a huge aid. In the classroom, teachers may benefit from ICT in the ways listed below.

i) It may aid educators in their own personal growth and development as professionals. With the aid of modern means of information and communication, educators may acquire new competencies. He may enrol in certification courses offered by prestigious universities and organizations like Oxford,

Cambridge, the British Council, and others. These tools improve his ability as a teacher and help make the material he covers more manageable, cost-effective, and accessible to his students.

(ii) We are well aware that research is arduous, and that data collecting is particularly challenging. Data collection and surveys may now be conducted with relative ease because to advancements in information and communication technologies. It's simple for a teacher to obtain feedback. The use of ICT also aids the researcher in analysing data, reading relevant literature, and publishing his findings.

(iii) Only via the use of information and communication technologies can a teacher have access to the e-journals, e-magazines, and e-library that will allow him to expand his knowledge base. Through audio and video conferencing, he may also engage in conversations and conferences with subject matter experts to deepen his understanding and develop his expertise.

(iv) A teacher may acquire cutting-edge pedagogical practises with the use of ICT. He can assist the kids with a wide range of tasks. Using Power Point presentations, he can assist students grasp abstract concepts and get a deeper understanding of the material covered in class. His ability to engage with faculty and students is facilitated by ICTs as well. He has no trouble communicating with which pupils, at what time, and where they choose.

(v) He may use ICT to enrol in and engage in a wide range of in-service training courses and workshops vital to his career advancement.

His work as a guidance counsellor benefits greatly from the use of digital tools.

(vi) With the use of ICT, he may advise students on where to find useful learning resources online, such as scholarly articles, e-books, e-journals, and social networking sites like LinkedIn.

ICT

(vii) aids him in curriculum development. He may compare and contrast the strengths and weaknesses, opportunities and threats, and societal and psychological concerns of various educational systems across the world. He uses these to design a curriculum that will assist the country reach its objectives.

ICT in Governance of Educational Institutions:

Every successful organization has strong leadership at its helm. In the past, schools' only function was to facilitate instruction and study, but times have changed. For the sake of their students' growth, educational institutions must perform a wide range of tasks, including but not limited to teaching, distributing scholarships, arranging seminars, symposia, workshops, panel discussions, parent-teacher meetings, and so on. When doing so, ICT is of great assistance. There is no longer any realistic alternative to the employment of ICTs in school administration. It may be used as a tool for educational administration. Here are a few examples:

(i) Managing the Teaching and Learning Process: ICT is useful in managing the teaching and learning process. Managing the day-to-day operations of a school, including classroom instruction and administration, as well as extracurricular and co-curricular programmes. Using different ICT technologies like CCTV and Biometric Attendance Machines, it is also useful for monitoring student activities and assessing the work of the institution's teaching and non-teaching personnel.

ii) All government activity is completed with the use of information and communication technologies. Information and communication technology is used to keep track of everything from students' whereabouts and payments to teachers' seniority and the government's willingness to pay for classroom supplies and salaries to the distribution of merit-based scholarships.

iii) Communication with the local community, parents, and government agencies is essential for the success of any educational institution. ICT technologies are used to transmit official reports. It is used in the presentation of data. Information required by various government agencies is routinely shared online, including student and teacher attendance records, personnel counts, yearly reports, infrastructure details, and more. PowerPoint presentations are used to show regulatory agencies the plans and designs for new courses.

Conclusion:

May be taken for granted, but in-depth research on how ICT is incorporated into schools' fundamental topics is seldom explored. It would be helpful to do further research on the challenges that educators face when attempting to use ICT into their everyday lesson plans. In addition, this research should cover not only public schools but also the Chinese school and the Indian school that are the three largest in Malaysia. This is due to the fact that certain institutions may have access to larger resources, allowing for quicker and simpler ICT deployment. It is helpful to draw parallels between various educational institutions so that the best practises may be adopted and the most problematic areas can be addressed.

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