



The Inclusion of Information and Communication Technology in Education

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Abstract:

In the era of 21st century ICT has given a core contribution to education. The paper introduces ICT and explore its role in education. ICT is typically defined as a group of technical devices, tools, and learning resources that are used for information sharing, development, management, and communication. Internet, mobile devices, laptops, tablets, and broadcasting technology abilities like TV, radio, Pod-casting, Wi-Fi, and a lot more software are all included in ICT. The paper argued that ICT impact on almost all aspects of educational practices. The investigators interviewed graduate and post-graduate students as well as educational

administrations. The previous literature is also reviewed and found that ICT has remarkable improvements in many areas of education. ICT has been identified in earlier researches and student interviews as having connected and dependent impacts on the teaching and learning process, as well as more specifically targeting learning outcomes.

Keywords: *Information Technology, Communication technology, learning, education.*

Introduction

The majority of learning in the twenty-first century is based on knowledge we have learned about things, places, people, ideas, or events secondhand. Both instructors and students must get familiar with this art in order to comprehend how to obtain learning as information. When necessary, they will be able to relay, store, and utilize the information. All of these are feasible when ICT integration is present in education.

ICT inclusion in education refers to incorporating ICT into the teaching and learning process. to comprehend, control, and utilize ICT technologies as needed. We must first comprehend the true meaning of ICT before recognizing its significance and function in education.

Information and communication technology is used in the form of tools and applications to collect, store, use, and transmit information as



accurately and efficiently as possible for the purpose of enhancing user communication, decision-making, and problem-solving skills (Mangal).

ICT aids in transforming the learning experience and bringing education to those who previously had access to it (CEC 2000). Through computer networks, this has connected the entire planet. People who previously had no access to learning resources or high-quality education are now able to further their knowledge in any subject they are interested in, whenever and whenever they choose. People can improve their technical and communicative abilities thanks to ICT.

ICT changes the dynamics of relationships in the classroom. Through ICT, traditional educational paradigms are evolving into contemporary ones, and analog communication methods are being replaced by digital media, mobile learning, e-learning, and computerized systems. Along with these, additional ICT applications have been added to support education, and more will be added in the future to transition education from a conventional paradigm to a modern model. Classes are now more visual, time-saving, and student-centered, all of which greatly encourage students to participate in their studies. Students are less involved in the learning process while using the conventional methodology.

Objectives:

- To find out how much ICT enrolled in Education
- To explain ICT tools enhance education
- To compare ICT-oriented learning with traditional learning

The art of ICT is bringing tremendous changes in all phases of education system. Those changes not only vary to teaching learning process; however, the education administration is also modernizing and becoming useful day to day through inclusion of ICT. To answer the question of the study (*Why and to what extent ICT is involved in education?*), I am going to answer this question and includes previous studies conducted in related topic. First of all, I am going to include the interviews I've conducted

with different students of LPU regarding ICT impact on their learning journey. I choose both junior and senior students for interviews and they provided distinct responses.

1. Malang Jan a PHD scholar of the Education School, Foreign language University, Hyder Abad said that ICT gives potential benefits to his study. He demonstrated that ICT help him too much in his research work. He argued that without the help of ICT his research work is challengeable. Softwares like SPSS, SAS, SQL made his research work very easy for data analysis.

2. Hayatullah Danish a student of Business Scool who is doing his MBA at University of Law, UK responded that in terms of ICT resources in his learning journey, he uses quit a lot of ICT tools. He pointed that Quickbook, Quickken and Turbo are the softwares that made their field tasks much easier. He identified some apps like (CardMunch, Skype and Evernote) that contribute too much to their learning.

3. Farhad is a junior student of Business School and does his BA in Economics. He responded that ICT impacts a lot on his learning. He valued Office automation software, especially Excel that contribute much to his study. He said that some multimedia tools such as videos, pictures and animations made their classes much interesting. He finally thanked Technology for providing software such as Dropbox, Quickbook, Flipboard for business students. This software stand shoulder to shoulder in solving their problems.

4. Raakhi a student of Film Industry and Animation School, LPU responded that ICT brought everything practical in their field. She said with the help of Technology, we practically practice on plays and movie making instead of reading them. She argued that she feels like she involved in real industry when using ICT tools in her learning process. She called this a real innovation in her field of study.

Upon discussions with learners it shows that ICT influences almost every learner. It gives competence to the leaners in development and enable them to be an independent learner. The

ICT innovation made their learning process much easy and simple. Apart from learning process, the research scholars are also engaged with ICT. Without the help of ICT contribution, the researches' results would not be trustworthy. Particular ICT tools should be presented in research work in order to bring reliable result and bring the work easy for research scholars.

Previous Studies and Interpretation

The effect of ICT on Students

In traditional model of education where a teacher is the only person who has all the knowledge and gives rarely rights to the learner to contribute. Today information and communication technology provide learners to develop themselves and take their own responsibility for their own learning.

Passy (2004) discovered how ICT affects pupils' motivation. The study also looked at how students used ICT in connection to their learning practices and academic outcomes. In England, they employed 17 schools. After analyzing the amount of motivation, the study found that students who used ICT tools in the learning process had high levels of intrinsic motivation, learning goals, and academic efficacy. The study also revealed that ICT affected both genders' motivation. Boys initially showed higher levels of motivation than females, but overall there was no difference between the sexes. The study found that ICT had a more favourable overall impact on students.

It was both their parents' and the children's ambition to be able to educate disabled youngsters. The absence of access to ICT was the cause of this. The disabled seldom ever have access to appropriate education, unlike others. Thanks to ICT, disabled people may now learn and realize their ambitions. It has given disabled students several tools to further their studies.

Lindstrand (2003) concentrated on special educators who assisted young learners in their learning. The Swedish National State Program to educate special educators in ICT for students with disabilities was examined in the study.

About 78% of instructors believe that ICT might be an effective improvement for students with disabilities. ICT technologies would be beneficial for many students who have impairments including DAMP, blindness, and other numerous disabilities. For instance, DAMP assistance is provided by animated and visual aids, while blind assistance is provided by audio, music, and many more related resources. Even yet, ICT enabled people with disabilities to stand and advance their knowledge and skills in the same way as others.

ICT was recommended as a specific requirement for education by Course, S. T. (2006). They came to the conclusion that ICT evaluation and monitoring will be crucial tools for special education. These initiatives are important for advancing, helping, and influencing disabled individuals as well as for advancing human rights.

A research by Cabrera and colleagues (2006) showed evidence supporting the beneficial effects of ICT on academic success. The study found that ICT has an impact on education outside of classrooms as well. Students are obliged to use ICT tools at home, and utilizing computers is especially crucial for students who want to access the outside world. This may lead to creative social, institutional, and learning environment transformation.

ICT and effects on Teachers

Teachers strongly influence from ICT. It makes their work easier and comfortable. With the help of ICT, the students become in partnership with teachers in classroom because the ICT engage students in the class and they both work interdependently. Furthermore, teachers use different software and hardware tools to manage the teaching process accordingly and comfortably. Furthermore, teachers develop their teaching career through ICT. However, ICT integration into teaching and learning, largely depends on motivation and creativity of the teacher. Teachers who access to ICT tools and bring them their class often has more.

Marshall (2007) conducted a study to find out solutions for the effective use of ICT to effect

on teaching learning process. The study revealed that on the first hand the government policies are very important to direct teacher education programs. The studied identified the implication for government policies regarding the involvement of ICT in education. It showed that learning and students' acting may limited if the government programs don't include ICT in education. Secondly, teachers' instruction strategies are seen important. They should understand what ICT tools can enhance the student learning. Third national curricula has a fundamental impact on ICT use in learning process. Those who create national curricula and examinations require professional development.

Bocconi (2011) called ICT as universal access to education. The study explained that ICT spread, document and evaluate information worldwide. The study revealed that the main reason behind these is concretely support of e-inclusion and universal access to education. Educators and teachers have possibilities to access and adopt digital educational resources that are fully accessible. The study further pointed ICT as a culture of accessibility for teachers and students to step onwards.

ICT and Effects on Education Management and Administration

The use of ICT in school management and administration has certain observable tendencies. In this essay, I provide an illustration of the overall management and administration of the LPU. Much more went into its management and administration policies thanks to the ICT. First of all, all of the university's schools implement 21st century curricula with the aid of ICT. They provide pupils with 21st-century skills and problem-solving abilities in all subject areas. With the aid of ICT, they modify their management and administrative policies in accordance with their setting.

The UMS is a useful component of the ICT resources used by many institutions to foster collaboration among faculty, administration, and students. It facilitates their interactions and increases their potential.

Organizations who don't include ICT into their management and administration practices fall behind and produce less work in a shorter amount of time than LPU. As a result, CT employs several very creative approaches in the management of education.

According to Flanagan's (2003) study, if school or educational organization administrators encourage and lead their staff to incorporate ICT into the curriculum, both the staff's professional development and the learning environment will improve. Therefore, the administrators are crucial in bringing about change in the present educational system.

ICT has enhanced opportunities for instructors and administrators to monitor students and have comfortable interactions with course material, according to Dawson and companions (2008). The study showed how different IT systems are utilized to make decisions for the management and administration of higher education. The study's findings showed that online students' participation and efforts gave professors the chance to provide more learning support and facilitation. The study also shown that administrators, educators, and students would have easy access to accommodations whenever and wherever it is necessary for them to participate in the teaching and learning process.

ICT integration in schools and educational organizations is mostly a function of educational leadership and administration. If the administration and executives of educational institutions promote ICT integration, teaching and learning will be done so successfully. They should become familiar with using ICT for administrative chores and provide their instructors and pupils access to it so they may use it in the classroom.

A research on the part of principals in introducing ICT in schools was done by Afshari et al. in 2012. The study's findings showed that principals' usage of ICT and professional development activities completely transform their leadership roles into goal-oriented ones. The study's findings showed that without ICT and computer skills, administrators would find it difficult to influence students' behavior and

there won't be any opportunity for innovation inside the educational system. Therefore, the decision-maker should offer professional development programs for concepts needed to comprehend how ICT might be used in schools.

Conclusion

The study presented ICT and examined its function in education since ICT plays a significant role in the field of education in the 21st century. ICT is typically defined as a group of technical devices, tools, and learning resources that are used for information sharing, development, management, and communication. ICT comprises the Internet, mobile devices, computers, tablets, and broadcasting technologies including Wi-Fi, radio, TV, and Pod-casting.

The paper made the case that ICT has an influence on nearly every facet of educational activities. The study uncovered notable advancements in several facets of schooling. ICT makes learning results more focused. ICT has been identified as having connected and dependent impacts on the teaching and learning process by student interviews and earlier research. However, both instructors and students must have a proper grasp of how to use ICT. Finally, it is the responsibility of educational administration and leaders to recognize the value of ICT in education and offer adequate ICT resources in schools for teacher professional development in order to promote effective and productive learning.

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