Technological Adaptation Amidst the COVID-19 Pandemic:

A Panacea for Teaching and Learning

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ABSTRACT

The Internet has transformed people's way of life and their access to education in the 21st century. The use of digital technologies in education has become extremely prevalent. The teaching-learning environment has shifted dramatically with the advent of ICT. Although some institutions are still wedged to traditional teaching learning procedures, refusing to incorporate technological tools in their teaching and learning. Their teaching-learning is based on old techniques. The unexpected outburst of Covid-19 in March 2020 shuttered the entire world. This sudden outbreak revolutionizes the whole educational procedures overnights. Many academic institutions that were earlier resistant to use ICT in teaching-learning were compelled to use digital technologies in their teaching-learning process, the only option available. The article focused on the importance of ICT tools in the teaching and learning process, with accompanying challenges of the implementation. It further suggested ideas for teachers and learners about how to cope with these difficulties and obstacles.

KEYWORDS

Coronavirus, covid-19, ICT, Learning, Pandemic and Education, Teaching and learning

INTRODUCTION

Markets, enterprises, offices, and educational institutions all around the world were closed because of the corona outbreak. People are compelled to remain in their houses in order to reduce the severity of the virus. It affects the health system, increases the cost of living, disrupts business, spreads poverty, and puts the world economy and security at danger (Chattu, K; Adisesh, A; & Yaya, S. 2020). The global education system has experienced significant changes and is currently in turmoil. One of the methods to restrict the spread of Covid-19 is to stay at home and maintain social isolation. The whole educational system has been disturbed by prolonged lockdown, regular curfews, and social distancing measures (United Nation, 2020). The day-to-day functioning of academic institutions have

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been severely harmed as a result of this. Schools, colleges, and universities were compelled to close temporarily because of the Covid-19 epidemic.

The closure of educational institutions has thrown the educational system into chaos (J. B. Stambough, B. M. Curtin, J. M. Gililland et al., 2020). Approximately 1.58 billion children, from pre-primary to higher education have been affected by this pandemic (United Nation, 2020). All educational institutions have closed, causing students a great deal of anxiety regarding their education, skill development, future aspirations, and career prospects. Thus, international lockdown and social distancing tactics have harmed the lives of children and teachers all over the world (J. B. Stambough, B. M. Curtin, J. M. Gililland et al 2020). There is ambiguity among the teachers and students about when the institutions will be opened fully. Educational institutions are rushing to find options to deal with this tough situation. The relevance of strategy formulation in educational institutions is highlighted by these situations. This is a situation that necessitates self-awareness and unanimity. The need to secure our students, children, teachers, academic staff, communities and society from the Corona disaster is imperative. Educational institutions are attempting to discover alternative strategies for dealing with this challenging issue (Dhawan,2020). Classes have been cancelled, and administrators have battled to transfer courses into an online version in days or weeks (Mc Murtrie, 2020). Educational institutions have created official websites and applications to facilitate the delivery of the online content, allowing students to continue their education. In such a perilous situation, technology has proven to be a true friend in our professional lives. There are no options available other than adopting digital tools for teaching and learning purposes. With the help of so many digital and online tools and efforts, ICT is one of the key aspects that has reduced the shield of social distancing and lockdown. In education, digital technology allows us to discover new solutions not only to what individuals learn, but also to how, where, and when they learn (M. M. Gu., & C. Lai, 2019).

ICT TOOLS USED FOR TEACHING AND LEARNING

It is specious that students and teachers in schools and higher institutions are progressively using Information and communication technology (ICT) tools. Through the use and integration of ICTs, new pedagogical tactics in the teaching and learning process are achievable (V. Arkorful, K. A. Barfi, & I. K. Aboagye, 2021). ICT has been proposed to serve a range of tasks in education, providing a catalyst for rethinking teaching practises, generating the kind of graduates and citizens required in an information age, improving educational outcomes, and strengthening and improving the quality of teaching and learning are just a few of them (Alemu, 2015). ICT makes it simpler to personalise lessons to each and every student as a teaching tool. Collaboration, engagement, multimedia coding, and more student control are just a few of the advantages of digital technology. Incorporating them into the curriculum would aid students in developing 21st-century abilities (autonomy, teamwork, critical thinking, and problem-solving). As a result, professional training should be used to integrate technology into education (Guillen-Gamez et al., 2018).

Integrating ICT into teaching and learning provides the students and teachers an opportunity to connect, access information, and complete writing projects and other classroom assignments (N. Malkus, C. Christensen, & J. Schurz, 2020). Students and teachers are increasingly depending on varied online platforms to learn and teach in innovative pedagogical methods. By encouraging more imaginative, creative, and cognitive thinking, as well as greater productivity, efficiency, and educational results, ICT in education enhances both the quality and quantity of education (Adeosun, 2010). Teachers and students, two cornerstones of education, are currently looking for digital platforms to better their education. As a result, teachers begin to use newer ICT tools, such as Google Meet, Zoom, (Z. Wu., & J. M. McGoogan,2020) Jitsi Meet, Microsoft Team, and apps, such as Google Classroom, Edmodo, Padlet, Kahoot, and Mentimeter, among others, to provide a platform for students to develop critical thinking skills and to work in collaborative settings for knowledge construction. During the corona pandemic, students also use various learning tools such as the Global Digital

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