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Educational Technology in the Post Pandemic Era

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ABSTRACT

With the recent outbreak of the corona virus pandemic now on standby, the paper examines the place of educational technology in the post pandemic era. Technology is now being used by educators to teach, connect and collaborate with students, parents and peers, while working from their own convenient points. Different concepts were considered, such as the concept of educational technology, educational technology and the future and support for educational technology and digital learning. The study concluded that educational technology is very much important and can aid life, teaching and learning and other aspect generally in the afterlife of corona virus and should be greatly put into consideration. The study recommended among others that The world at large with regards to the developing countries such as Nigeria, haven witnessed the first wave of the corona virus pandemic needs prepare and get ready for unforeseen circumstances, as to embrace educational technology.

Keywords: Education, Technology, Educational Technology, Corona Virus Pandemic.

Introduction

The Coronavirus outbreak (COVID-19) brought about a new era in education. The recent pandemic of the Coronavirus increased the gaps in the education sector globally, which made technology more significant. Technology is now mostly used by educators to teach, connect and collaborate with students, parents and peers, while working from their own convenient points. Most educators have taken to this online pivot with energy and enthusiasm, COVID-19 outbreak created educational disruptions, and global health concerns that proved very difficult to manage by global health systems. The coronavirus pandemic had no boundaries, and the effect was very large and fast. Just within few months of the outbreak of the virus, it drastically changed the lifestyles of the entire world with billions of people being forced to 'stay at home, observe self-isolations', work and learn from home. The unexpected arrival of the pandemic and subsequent school closures saw massive effort to adapt and innovate by educators and education systems around the world. These changes were made very quickly as the prevailing circumstances demanded. Almost overnight, many schools and education

systems began to offer education remotely (Kamanetz 2020, Sun et al. 2020). Through television and radio, the Internet, or traditional postal offices, schools shifted to teach students in very different ways. Regardless of the outcomes, remote learning became the de facto method of education provision for varying periods. Educators proactively responded and showed great support for the shifts in lesson delivery. Thus, it is clear and generally accepted that "this crisis has stimulated innovation within the education sector" (United Nations 2020).

It is pertinent that as we transition out of the COVID-19 pandemic and into an uncertain future that we can truly reimagine education, scholars, policy makers, and educators should have the courage to make bold changes beyond simply changing instructional delivery. Delivery of instruction is mainly now technology inclined therefore, stake holders should find what is desirable and even possible for future generations that will make ease of learning. Leicester Learning Institute (2020) found that with educational technology fully in place, playing a full and active role in innovations in the use of technologies for learning and for instruction educators can effectively teach and learners can also easily learn whether in school or at home.

Conceptual Framework

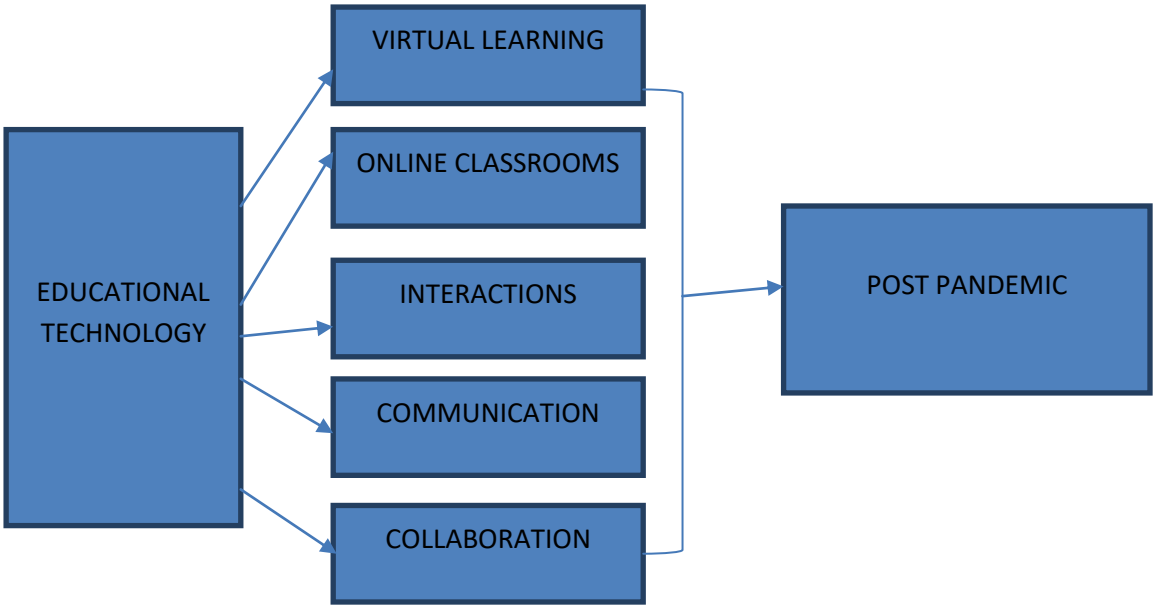

Figure 1: Conceptual Framework of the Study
Source: Wordu, N. C. (2021)

Concept of Educational Technology

Looking at educational technology, we shall look at the words 'Education' and 'Technology' respectively. 'Technologies' refer to the systematic application of techniques and principles of science to achieve an objective effectively and efficiently. It

is that branch of advanced scientific study which involves highly designed and sophisticated engineering software and hardware. It deals with the application of knowledge for practical ends. Technology results in new designs and devices to solve problems and to improve human productivity (Merriam Webster Dictionary). 'Education' on the other hand is the process of modification of behaviour, socialization, social efficiency, acculturation, and adjustment for the betterment and benefit of an individual and the society. It enhances the all-round development of the human personality.

Technology is a key component of education in the 21st century. The association for educational communication technology (AECT 2015) stated that educational technology is the study and ethical practice of facilitating learning and improving performance by creating, using, and managing appropriate technological processes and resources. Technology in education has modified teachers' methods from the traditional approach that often place them as dispensers of knowledge to a more flexible approach where they act more as facilitators, mentors and motivators to inspire students to participate and learn (Onyema & Deborah, 2019). Technology facilitates different modes of learning such as: Remote learning, Distance learning, Virtual learning, Blended learning, Mobile learning, Distributed learning, Machine learning, Ubiquitous learning, Deep learning, Cooperative and Collaborative learning which are mostly carried out electronically and on-line.

The pandemic has made necessary for education to go digital, and education stakeholders including students are confronted with the challenge of transition to online learning. Online education is a general concept for teaching and learning electronically with the aid of technological tools and platforms and the use of appropriate technologies in the teaching and learning process has increased accessibility to learning resources such as 'Massive Open Online Courses (MOOCs) and multiple learning approaches to meet the need of diverse learners (Onyema et al., 2019). The successes of online education depend on a few factors which include good internet connections, learning software, digital skills, availability and access to technology etc.

Online education platforms are vital tools that support inclusive education and online learning. Online education has its roots in distance education and the emergence of digital technologies that facilitate the efficient and reliable delivery of lectures, virtual classroom sessions and other instructional materials and activities via the internet (Onlineeducation.com, 2020). With the high penetration of the internet and mobile technologies across the globe, online education platforms can be maximized to bridge the gaps in education, thereby reducing the rate of global illiteracy. There are broad ranges of online education tools/platforms that facilitate online education particularly in times of outbreaks like the Coronavirus pandemic. Some of these technological tools/platforms according (Bates 2003) are listed below:

1. Skype.com
2. Stanford Online (Online.stanford.edu)
2. Google Classroom/Open Online education (edu.google.com)
4. Youtube.com

5. Blackboard.com
6. easyclass.com
7. Coursera.org
8. Google hangouts (hangouts.google.com)
9. Zoom (zoom.us)
10. Whatsapp.com
11. Academicearth.org
12. iTunes Free courses (apps.apple.com)
13. lessonpaths.co

Eze (2018) posit that the use of educational technology's facilitates online education facilitates student-teacher interactions, connection and relationships and also enhances teaching and learning experiences, improves content creation, course sharing, assessments, and feedback. Educators can reach and interact with their students and colleagues on the go from any location, and lectures can be fixed at any time of convenience. Thus, enabling teachers and students to optimize these technologies to supplement classroom teachings, and to improve their digital skills in line with emerging trends in education. More so, knowledge of technology increases teachers' and students' interest, competence, confidence, creativity, employability and output, and also prepares them for the future.

Educational Technology in Post Pandemic Era

With the emergence of the current pandemic, schools, hospitals and every work of life has changed their orientation and directed their thinking towards technology, even the medical school not been excluded, have immediately converted their whole preclinical curriculum into online formats involving online lectures, webcasting, virtual group discussions, video-conferencing, and e-learning platforms that can be used to deliver lectures or tutorials via hand-held devices and laptops remotely (Chick et. al., 2020). However, such transition may be slower in areas where the technology infrastructure is still poor and underdeveloped, and online lectures still need to be prepared. With the help of educational technology, looking at the benefits of virtual learning, it has been observed that online formats allow students easy access to educational materials including the biggest international conferences as per their convenience, in their preferred environment in a consistent and seamless manner. Chick et al. reported that these innovative solutions utilizing technology may in fact help to bridge the educational gap during unprecedented circumstances (Chick et. al., 2020).

Chaturvedi, Vishwakarma, & Singh, (2021), observed that when global pandemics emerge, they strike the whole world all of a sudden and affect every aspect of life with no one prepared or ready for such a situation. The impact of the current pandemic on life generally has been unprecedented, far-reaching, and has presented unique challenges to every aspect of life especially in the educational system. It is frightening to consider that probably nothing will return to the way it was before the

appearance of COVID-19 even when the current pandemic eventually subsides. This makes it pertinent for the world to adopt an educational system that would be safe, sustainable, and equipped for all kinds of unexpected scenarios in the future (Gallagher & Schleyer 2020). Hence, investing more in educational technology and virtual learning seems imperative right now as it seems destined to be the method of the future in education, collaboration, interactions, communication and learning generally. Katiz (2021) mentioned that we need to create more online platforms that are easy to use for the students and faculty and that most existing platforms are no longer suitable for the current educational changes caused by the pandemic though the ones used during crises so far have been good enough for emergency use only, and are not viable for long-term usage (Emergency Teaching and online learning, 2020). There are many possible ways for schools to deliver remote learning (Zhao 2020) stated that as schools continue to explore online learning, new and more effective models are explored, innovatively developed, and practiced. The more effective models of online learning are those that have a well-balanced combination of both synchronous and asynchronous sessions that enable more desirable ways of learning. Instead of teaching online all the time, it is possible, for example, to conduct inquiry-based learning, thus, there is need for the support for educational technology.

Support for Educational Technology and Digital Learning

Educational technology offer entirely new answers to the question of what, how, where and when people learn. Educational technology can enable teachers and students to access specialized materials well beyond textbooks, in multiple formats and in ways that can bridge time and space. Working alongside teachers, intelligent digital learning systems do not just teach students, but can simultaneously observe how they learn, the kind of tasks and thinking that interest them, and the kind of problems that they find boring or difficult to engage in. Educational technology system can then adapt the learning experience to suit students' personal learning styles with great comfort. Moreover, technology does not just change methods of teaching and learning, it can also elevate the role of teachers from imparting received knowledge towards working as co-creators of knowledge, as coaches, as mentors and as evaluators. A quarter of school principals across the OECD said that shortages or inadequacy of digital technology was hindering learning quite a bit or a lot, a figure that ranged from 2% in Singapore to 30% in France and Italy (OECD, 2019). Technology is also only as good as its use. According to OECD's Teaching and Learning International Survey (TALIS) in 2018 just 53% of teachers on average let their students frequently or always use information and communication technologies (ICT) for projects or classwork.

Conclusion

In time of crises, it is expected that change takes place, and in this moment of the corona virus pandemic (COVID 19), several changes has been witnessed in different aspect of life, ranging from educational sector, banking sector etc. life in the phase of

pandemic and after is not expected to come to stand still. With the help of technology and educational technology for instance, life generally will be as normal as it was before the outbreak of the pandemic, because there are several technological tools to aid different aspect. For instance education, online/virtual learning can enable the smooth running of teaching and learning with the help of social media tools called zoom, skype etc. Communication and collaboration can as well continue with the whatsapp, facebook and so on

Recommendation

It is recommended that:

1. The world at large with regards to the developing countries such as Nigeria, haven witnessed the first wave of the corona virus pandemic needs prepare and get ready for unforeseen circumstances, as to embrace educational technology.
2. With the changes witnessed in different sectors, such as education sector, where teaching and learning was bridged as a result of the corona virus pandemic, the researcher advice that technology should be put into consideration.
3. Major support in terms of education technology should be thought of by educational stakeholders in order to boost teaching and learning forward to suit the 21st century.

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