Educational Technology for Sustainable Development in the Era of Covid -19 Pandemic in Nigeria: Problems and Prospects

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Abstract

The paper discussed educational technology for sustainable development in the era of covid -19 pandemic in Nigeria: problems and prospects. Literature review was used as a method of gathering information on covid-19, education, educational technology, sustainable development, problems and prospects. Also, the objective of the study was to determine the role of educational technology towards sustainable development and its disruption in education sector. Related problems on educational technology identified in the study are lack of technology leadership, lack of training programmes for facilitators, lack of proper mind set towards integrating emerging technologies into classroom teaching and learning on the part of students and lack of enlightenment programmes for stake holders in education and the society at large on the need to support ICT integration in Nigeria education for sustainable development. The prospects focused on developing educational curriculum blue print that will review schools calendar, introduce new ways of acquiring skills and knowledge in line with information communication and technology (ICT) via internet applications platforms that will re-bounce back what was loss during covid-19 crisis. Lessons learnt from the pandemic also provided ways on how to strengthen and develop greater resilience to absorb future shocks and rebuild back crisis proof educational training such as technical vocational education and training (TVET) and ensure better preparedness to achieve vision 2030 agenda for sustainable development in Nigeria.

Keywords: Education, Educational technology, Sustainable development, Covid 19 Era, Problems and prospects.

1. Introduction

The corona virus known as covid -19 pandemic originated from the city of Wuhan in China, it became a major public challenge not only in China but also countries all over the world. According to Adelakun (2020) the pandemic lead to break down of most of the human activities that could be responsible for development and sustainability in various parts of the world, Nigeria is not an exception. The covid - 19 pandemic affected economies and societies around the world and caused an unprecedented fall in economic activities, loss of working hours, and sharp rise in unemployment and underemployment. The situation jeopardizes the accomplishment of Sustainable Development Goals (SDGs) in particular Goal 8: "Promotes sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all". And its target 8.5, which calls for achievement by 2030, of full and productive employment and decent work for all". The covid -19 pandemic has disrupted education and training at all levels with

complete closure of training institutions in the vast majority of countries. Most educational institutions including those in TVET were lockdown due to covid – 19 measures, teaching and learning moved from classroom to remote means, facilitated by the internet, television, radio, or print materials. Remote learning is a weak substitute for hands on experience. Technical vocational education and training (TVET) programmes have particularly been hard hit, given their unique focus on work – based learning and the acquisition of practical skills which is closely related to educational technology practical – oriented course in education. TVET can contribute to economic recovery by ensuring that it rapidly identify and respond to such skills needs. However, conducting assessments and TVET certification became a problem as the hallmark of the programme focuses on practical skills and work readiness, for instance, countries like Austria, France had to cancel or postponed theoretical and practical examinations or rely on past results and continuous assessments to determine grades or assume that assessment take place after covid – 19 measures were relaxed while Moldova was ready for online examination system.

In the light of covid - 19 crisis, there is no doubt that the pandemic has caused serious set- back on the development of Nigeria education system. Schools were locked down indefinitely, school calendar was disrupted, and reduction in economic development of the country affected funding of education, hence, families in Nigeria faced economic hardship and tough times as a result of the lockdown, many students dropped out of school and take to other means of livelihood. Indeed, the pandemic was a trying period for Nigerian families. It hit the sustainable development of Nigeria while education and technology were used as means to mitigate the negative impact of the pandemic on education system.

Education and technology are important tools responsible for the growth, development, wellbeing and sustainability of any society in the world. This can be actualized through information communication and technology integration (ICT). The integration of innovative technologies into classrooms enhances learning motivation which is critical for successful attainment of set of learning objectives (Edeh, 2019). Education is a strong factor that can determine the success of a sustainable driven development. According to UNESCO (2000) "education refers to the total process of developing human ability and behavior". It further explained that education is an organized body of knowledge designed to communicate a combination of skills, understanding and values for all activities of life. Education is used to solve human problems, improve life and make it more comfortable. It is a formidable tool for man's survival and one of the many ways man employ to bring all round development. Classroom teaching and learning can enhance student performance through application of various educational technology media.

Educational technology is the modern method of teaching and learning using instructional facilities as well as strategies in organizing academic work. Pedagoski (2015) defined educational technology as a systematic and organized process of applying modern technology media to improve on the quality of education. Educational technology is also a practical – oriented course in education. It exposes students to skills acquisition such as craft work, photography, computer, video coverage, videotaping (recording). It afford students opportunity on graduation to fend for themselves, be self-employed, self–reliance, independent, active participants and contributors to nation building and economic empowerment. Educational technology is seen as a veritable

tool for fostering development and acquisition of entrepreneurial skills for economic growth and sustainable development of any society.

The role educational technology play in the advancement and sustainable development of any society cannot be over emphasized. The advent of educational technology based ICT has proffered solutions to most societal and education challenges faced in Nigeria. In recent times, through the use of internet, open and distant education has been made possible and became the order of the day even in the face of Covid 19 pandemic. UNESCO (2020) reported that public and private stakeholders in TVET promptly forged partnerships to increase the availability of accessible distance learning solutions, develop new training programmes and allocate additional resources for mitigating skills and labour shortages in sectors heavily affected by covid -19 crisis. It implies that one can still be in a particular location on the globe and still access information. Furthermore, with the use of educational technology, students can study material independently through developed instructional computer packages repeatedly through replay. It has made teaching and learning easy through application of various modern educational technology devices or platforms. The development and growth of computers and internet applications has not only helped to track down students and teachers progress in terms of teaching and learning but also lead to sustainable development in Nigeria.

Brundland Commission (1987) (formerly known as the World Commission on Environment and Development WCED) defined sustainable - development as the development that meets the needs of the present without compromising the ability of future generations to meet their own needs. Sustainable development should not only aim at improving the quality of life, but also compliance with the capacity of the ecosystems, and the earth as a whole. Sustainable development suggest developing a global consciousness rendering an account of caring for the needs of citizens. Sustainable development has three components: environment, society, and economy. The well-being of these three areas is intertwined not separate. Sustainable development also implies devising a social and economic system which ensures that real income rise, educational standard increase, health of a nation improves and the general quality of life is advanced. Otamiri, et al (2021) sees sustainable development as that which guarantee the protection of environment and resources today and tomorrow. The authors explained that it is self -sustaining and meets the needs of present and future generation. Some measures of quality sustainable development include, level of education standard, availability of housing, life expectancy, adult literacy, others are general human comfort, low poverty level, increase in educational level, high level of equality, high literacy level, good health care and health care infrastructure among others.

2. Problems of Educational Technology in the Era of Covid-19 Pandemic in Nigeria

The problems of educational technology in an effort to contribute to sustainable national development in the era of covid -19 pandemic include;

Lack of Leadership – leaders lead without vision, stakeholders in education find it difficult to sit together and deliberate on measures that will help facilitate the use of technology in teaching and learning for enhanced sustainable development. Leaders are restrained from effecting the statutory obligations that guides the implementation of the full scale of educational technology in Nigeria.

Lack of Training for facilitators - Training is a way of updating knowledge of teachers, the current modern technology applications has not been taking into consideration. With this back-drop, teachers find it difficult to see the potency of technology in education. Infact, no teacher under the new dispensation of information, communication and technology ICT (digital age) can really undertake teaching that will contribute meaningfully to sustainable development without training programmes and continuous up-keep by relevant authorities.

Lack of proper mind set – The major problem faced with emerging technology integration into class room teaching and learning in Nigerian schools is that students may be reluctant to learn the new technology as a way of advancing knowledge especially acquiring computer education skills. Computers being the tools for educational technology are limited in Nigeria schools. Many schools in Nigeria are still using the traditional approach of teaching and learning. This method of teaching and learning does not give students enough room or time to interact, sometimes it leads to boredom and makes learning drudging. The method has indeed hampered the learning ability of a child hence, made effort of teacher who tried to impact knowledge futile.

Lack of ICT enlightenment programme - The advent of computer into Nigeria initially came with some level of resistance especially in work environment like government offices and banking sector where such action was perceived as a deliberate attempt by government to lay off workers from their jobs. The idea of introducing computer was to enhance productivity, save time, cost and also increase economy growth and sustainability as it where with other developed nations of the world like Japan, USA among others (Aniah, 2022).

3.   Prospects of Educational Technology in the Era of COVID – 19 Pandemic in Nigeria

Interestingly, the advent of educational technology has greatly assisted in proffering solutions to most of the challenges faced in education sector and other human endeavors.

Improvement in knowledge Assimilation - The integration of new technology into education has brought about great tremendous improvement in impartation and assimilation of information. This is a laudable development and provide more understanding about means of making teaching and learning more effective and appreciative. For example during the era of covid – 19 when schools were lock down, virtual or online education programmes within Nigeria and around the globe continued e.g. Educational conferences and economic conferences to address pressing issues that affect or bother on national development were held at various locations in Nigeria using virtual technology applications. Furthermore, journal papers for publication both national and international progressed steadily during the pandemic era.

Enhanced Computer Skills – Through educational technology instruction, computer development skills among students as well as determining measures of ascertaining the level of learning on the part of students and the quality of learning output or performance improved. The new technology has not only improved education standard but has helped to address some urgent and pressing problems in Nigeria by linking its citizens to internet thereby gained useful information that enhances national development and sustainability e.g. during covid -19 there were exchange of useful ideas through internet particularly on health related issues for control and to forestall feature outbreak of diseases such as the establishment of Sirra leone National Ebola Training Academy, World Economic Forum (2020) also call for rapid training of

communities health workers to contribute to covid – 19 health responses in USA and UK to serve as example for other nations to emulate.

4. Conclusion

The study established that the integration of new technologies using educational technology - base as a tool has greatly helped in addressing challenges experienced by Nigerians as a result of the outbreak of covid -19 and also advanced measures to absorb future incidents e.g. by developing educational curriculum blue print to address education issues such as prolonged closure of schools, technical vocational education and training (TVET) skills acquisition programme to reduce unemployment, hunger and also provide good health programmes for the nation.

5. Suggestions

The following suggestions if adhered to, it will strengthen preparedness for future crisis:

1. Government should invest in the development of adequate crisis response plans for education sector from national down to the provider level.
2. Enhance access to education and training through improved internet infrastructure and ensure affordable connectivity.
3. Develop and maintain easy access to distance learning platform, collaborate with private education technology sector and the national level.
4. Deliver relevant training and skills to young people and adults to meet current and future needs, increase efforts to reskill and up-skill workers with a view to rebuilding back better and achieve vision 2030 agenda for sustainable development.

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