

Implementing Virtual Teaching in Nigerian Colleges of Education: Human and Material Resource Challenges

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Abstract

This paper tries to point out the human and material challenges in curriculum implementation in most of schools and most especially in colleges of education. The covid-19 pandemic forces a new paradigm of implementing the curriculum in the name of virtual teaching and learning, and how unprepared for it we are as a nation. The paper, therefore stresses the need for teacher educators as well as prospective teachers to embrace the online platforms in curriculum implementation, as the only way to ensure continuous teaching and learning, away from the conventional classroom experience that we are used to in a crisis like this. The paper recommends that the government should really get involved in the provision of digital materials that would make virtual teaching possible, if the nation would record any remarkable success in curriculum implementation during a crisis like this, most especially in teacher training institutions.

Key words: Education, pre-service teachers, curriculum Implementation, virtual learning, Covid-19

Introduction

The Corona Pandemic came upon the world suddenly and brought devastation to all sectors of humanity. With death tolls rising, all schools were closed to protect the vulnerable. The long stay at home affected the implementation of the curriculum at all levels of education. The federal minister of education instructed all schools to start virtual teaching to improve curriculum implementation which had become halted. Most colleges of education swung into action using the google classroom as platform for learning. Many colleges of education were not prepared for this, neither were their students. Short courses on virtual learning were mounted and lecturers commenced.

Curriculum Implementation

Curriculum has a significant factor in the process of impacting knowledge; it is therefore not possible to have a meaningful education without a curriculum, which is a framework that determines what happens in the process of education. Curriculum is defined as all learning experiences that learners are exposed to under the guidance of the school, which comprises of the programme of studies, programme of activities, as well programme of guidance. Nicholls (2012) defined curriculum as what happens to students for which the school is responsible. The sum total of human endeavour geared towards the realization of the societal aspirations through the institution of the school. She continues further that the major variables in human endeavour are the

teachers (who implement the curriculum); the students (who are basically learners that the curriculum is planned for); the support system (from government and private initiative); and the curriculum planners (who are usually experts that designs the curriculum, recommended implementation strategies and evaluate, to ascertain the extent of achievability of the curriculum objectives.

Kolawole (2016) asserted that a curriculum is a pivot on which everything that takes place in the school revolves. This is because it is the curriculum that gives shape and direction to education. However, a curriculum can only be actualized when the learners for whom the curriculum is planned for are brought into contact with the planned curriculum at the level of implementation, which mostly takes place in the classroom.

The process of curriculum planning is believed not to be completed until learners are brought into contact with the planned curriculum. Borrowing the words of the economist that production is not complete until the goods have reached the final consumer. It is on this basis that curriculum implementation is defined as the execution of the planned curriculum by the teacher using curriculum materials that have been developed for that purpose, which most of the time takes place in the classroom. The process of implementing the curriculum starts outside the classroom with the teacher breaking down the whole curriculum into a teachable units as well making adequate preparation

for all classroom problems that are likely to prevent effective implementation of the curriculum that should result into effective learning which is the main reason why implementation is taking place. This is why whatever the teacher does during the process of implementing the curriculum has a lot of implications on the learners. It is at this stage that the learners for whom the curriculum is planned for interacts with the contents and materials in order to acquire necessary knowledge, skills, attitude and abilities. The task of implementing the curriculum lies on the teacher (Izuagba, 2012). Unfortunately, the exigency of covid-19 forced students and lecturers out of school and automatically imposes a new paradigm of implementing the curriculum away from what we are used to.

Covid-19 and its Impact on education

Coronavirus are family of viruses that ranges from the common cold, to severe acute respiratory syndrome (SARS), and the most recent of the virus is the one called Covid-19, which was first detected in Wuhan, china in December of 2019. However, since the first reported case in China, Covid-19 has spread to almost every countries of the world. By the end of February 2020, there was an outrageous growing spread of Covid-19 virus and it was reported that a little over two weeks later, 120 countries have closed schools which has negatively impacted billions of students across the globe. This according to world Health Organization that 167,515 global cases has been reported, 6,606 deaths as at March 16th, 2020. Even though the world has dealt with pandemics in the past, the worry about Covid-19 stems from lack of previous experiences with it, since the virus is assumed to be previously unknown, so highly contagious and believe as it is believed to pass easily from one person to the other person.

As part of effort to contain the spread of the coronavirus, public spaces, were closed down. Such as schools, offices and other public spaces. Most governments around the world have temporarily closed educational institutions in an attempt to contain the spread of the covid-19 pandemic. Even though, while school closure seems a logical solution to enforce social distancing, the negative impact on education is likely to be most devastating, because of prolonged school closure. Many learners have fewer opportunities at home, and they are out of school which poses a serious economic burden on the parents who are facing greater challenges in providing adequately for their education to continue while at home. This is because many families rely on

public school system for the education of their children and other necessities such as food and childcare. With the closure of schools, many of these children are left without those basics of life such as food and other childcares. More also, the recent school closures have added to the time that most students needed to spend in the school. It was reported by the United Nations that over 166 countries closed schools and universities to contain the spread of Coronavirus, which impacted one and a half billion school children and youths. UNESCO international also pointed out that the nationwide closure of schools are impacting hundreds of millions of students, and that several other countries have also implemented localized closure of schools which have also impacted millions additional learners

Education however must continue regardless of school closures, many school system were forced to turn to technology through internet as an alternative to normal school instruction which takes classes online which can be referred to as distance learning. Shifting education and curriculum implementation away from the usual classroom interaction and teacher centered teaching learning process to an implementation process that would remove the teacher and the learner in space and distance in the name of virtual teaching learning process.

Implementing virtual teaching in Post Covid era

Virtual learning, digital learning or e-learning, simply means the use of computer software, the internet or both to deliver instruction to students. It minimizes or eliminates the need for teachers and learners to share classroom spaces. Teaching and learning is taking place between the teacher and the learners, but the are not physically present with each other. Virtual learning engages the use of computer software, internet to deliver instruction to the learners. Virtual learning comes in several forms;

- Computer Based
- Internet Based
- Remote Teacher Online
- Blended Learning
- Facilitated virtual Learning.

Though technology already had a big hand in most schools, the new dependence on technology for every aspect of education is such that was forced on us by the emergence of Covid-19. This had many teacher educators and teacher trainees struggling with technology, as well the need to reconstruct study time at home, away from the regular school environment. Many teacher educators and their learners had to learn

to convert their lessons to online platform, both the trainees and teacher educators are learning to deal with remote learning and communication. Many teacher educators and their students do not have access to devices that would make virtual teaching and learning possible in their homes, which is making virtual learning rather difficult, if not impossible to achieve. As a result of these, many learners were forced to miss out on their education which seriously impacted curriculum implementation negatively. This is possible because a lot of schools and countries are less prepared and this makes it impossible for a lot of teacher educators as well teacher trainees to make it online. The exigencies of Covid-19 however is telling us a nation that preparedness is a crucial factor if we must achieve any remarkable success in our educational system, and teacher preparation in particular. This is because the enormous responsibility on the teachers makes teacher trainees and education a very important enterprise in every nation, as no nation will like to toy with the future of its youth.

Human and Material Resource challenges

- **Parents:** A lot of parents cannot afford the cost of digital devices (Android phones, i-phones, internet, and so many other things that would make virtual learning possible and easy for the learners. The shock of Covid-19 delve an unexpected blow on the economy of a lot of parents with many out of their jobs, and so many others on half payment which has a serious implications on the economic power of a lot of parents, making it a serious burden, if not totally impossible to provide this devices that would enable their children continue with their education, despite the closure of schools. The implication of these however is that despite the government efforts to make sure that students do not lose their school time by promoting and emphasizing virtual teaching, a lot of students were left behind because of the inability of the parents to enable them have access to facilities that would make virtual learning possible.

- **Learners:** Most learners themselves are so inflexible to changes, so therefore, a lot of learners are not adequately prepared to make use of the devices that would make virtual learning possible, many do not have digital devices that would make virtual teaching and learning possible, and those that have access to all these devices are underutilizing those devices, thereby leaving them behind in the process of virtual teaching and learning, this is

because apart from making and receiving calls, snapping pictures and chatting on WhatsApp and facebook oamy of our learners do not know how to access those applications that would make virtual teaching and learning possible. Even learners found in our teacher trainee institutions. This is having a lot of effect on them to enable them to be at par with their colleagues at the global setting. Very many of them also are far away in their villages where internet connectivity is a problem, if not impossible, thereby leaving a lot of the learners behind in the struggle for knowledge through virtual teaching and learning during the covid-19 pandemic. This impacted learners both academically and emotionally, because of continuous absence from school due to closure on the basis of covid-19.

-**Teachers:** are the head and heart of the educational enterprise, but it quite unfortunate that a lot of teacher educators themselves are completely left out of the virtual teaching and learning during the Covid-19 pandemic, this is unconnected with the fact that a lot of them are still analog in their approach to teaching and learning, they are reluctant to change from their conventional way of doing things, which is the normal classroom interaction which will bring them into physical contact with the learners. Many of them cannot make use of the facilities that would make virtual teaching and learning possible, and just like the learners they are teaching, many have digital devices ,without adequate knowledge on the usage to bring themselves into a classroom situation, making teaching and learning possible through virtual teaching. Many teacher educators cannot access the use of computer and other applications on their phones and other digital devices without seeking the help of the learners they teach. This move has exposed the glaring digital divide that exists within our educational systems, most especially in our colleges of education. A clear indication of "what you do not have, you cannot give". This has a lot of implication on the school system, because it makes continuous learning a serious problem during the covid-19 pandemic in our colleges of education. As a result of this, many contents were left untouched, with many learners also left behind and so many others out of schools which negatively affected curriculum implementation in many of our colleges of education.

-**Cost of Internet:** The cost of assessing the internet is also a problem to actualize the virtual teaching and learning in our colleges of education, as a lot of the teacher educators were also complaining the high cost of keeping themselves online, in spite

of the meager salary and several unpaid allowances, which is making it difficult to actualize virtual teaching and learning during the Covid-19 pandemic. This also, has a lot of implications which impacted negatively on curriculum implementation in our colleges of education during the Covid-19 pandemic.

- Power Supply: Access to adequate power supply is another problem that has negatively impacted the implementation of virtual teaching and learning during the Covid-19 pandemic. In most schools, and homes, access to regular and constant power supply is always a problem, which makes it difficult to fully actualize the objectives of virtual teaching and learning during the Covid-19 pandemic. Both the teacher educators and the learners they teach are always complaining of inadequate access to electricity supply to charge phones, computers and other digital devices that would get them engaged during the teaching and learning process through the virtual teaching and learning, which the coronavirus pandemic has forced on us. Access to constant and adequate power supply is a serious problem that has dealt a negative and serious blow on the successes we are supposed to have recorded during Covid-19 pandemic, which is also forcing virtual teaching and learning on us in the implementation process in our teacher training institutions.

-Internet accessibility: is another challenge of virtual teaching and learning during the Covid-19 pandemic. A lot of schools in Nigeria are rated in the bottom in terms of internet availability, affordability and accessibility, which has a lot of implications on the way successes are recorded in virtual teaching and learning during the covid-19 pandemic. Nothing can be achieved in the implementation of virtual teaching and learning, if there is no access to the internet. As the saying goes in some quarters "having access to the internet is life itself" This is because when you are connected to the internet, you have the whole world in your hands. The invention of the internet is what brought about the phrase "the world is now a global village. With access to the internet, you have access to unlimited knowledge, as well as you can make everything possible. But it is unfortunate today, that in most schools in Nigeria, colleges of education in particular, access to the internet in terms of availability, affordability and accessibility is almost impossible, which has a lot of implications on the implementation of virtual teaching and learning during the covid-19 pandemic. Lack of accessibility to the internet is putting a lot of pressures on curriculum implementations, which is making a lot of

colleges of education struggle to provide quality education for all, through virtual teaching and learning, which also negatively affected curriculum implementation in our colleges of education.

-Schools: Finally, a lot of schools cannot find their ways around online teaching during the Covid-19 pandemic, colleges of education inclusive. This is because the virtual teaching and learning were forced on a lot of schools which makes it difficult for both the teacher educators and the teachers in training to cope with the pressure, due to lack of adequate preparation and training. A lot of study time however was lost, a lot of contents were left unattended to, standardized testing and schools admissions were delayed across the country in our teacher training institutions which left us with not so much achievement in terms of proper curriculum implementations in our teacher preparations through virtual teaching and learning during the Covid-19 pandemic, just because schools and teacher educators are just learning to convert their teaching and learning to online platforms as well changing the whole learning plan because of the inability of most teacher educators to switch over to online platform of virtual teaching. All because most colleges of education just could not find their ways around online teaching and learning for effective curriculum implementation.

Here are some twitter comments about virtual teaching and learning in schools on channels television sunrise daily, 14th July, 2020.

@Oseniridwan20 : *re-opening schools is the best option because the virtual classes is not effective, because our educational system is not built in that direction which makes it difficult for the schools to participate in virtual classes.*

2sjonu: *Have you imagined the double cost of such an endeavour? Will the school provide parents with the needed Data after exorbitant charges as fees? The parents still grapples with the cost of data & you know what that means in Nigeria!*

@xchrix87: *The measures are not easy for schools to implement. Mrs koiki's view on learning online, I took time to survey this and can tell you that it's 95% ineffective. Except you are talking about a few schools, mostly in Lekki and Ikoyi.*

Conclusion

The coronavirus crisis is a deep and a sudden shock, and it is a warning to us that it is unlikely to be the last, and so teacher training institutions and teacher educators should not lose sight of the long game. It is therefore important that

teacher educators are fully computer literate and numerate and also enhanced themselves in the use of all those tools that makes virtual teaching and learning possible so as to make it easier for them to effectively engage their learners and strengthens the teaching learning process through virtual teaching and learning. If this is done effectively, it would move teaching and learning away from the conventional classroom interaction to a more learner centered approaches, which would be fuelled by the use of virtual teaching and learning tools.

According to Imogie (2013), the needs and challenges in virtual teaching through ICT usage are best accomplished through education whose bedrock are the teachers. This is because what the teacher knows and does, can make a difference and what he does not know, cannot do, can be an irreparable loss to the learner (Akale, 2002). We are in the 21st century where things are happening fast, and so to realize the objectives of schooling, we must as a matter of urgency respond to the latest development in the field of education, where teaching and learning process is gradually shifting from the conventional face to face classroom interaction between the teacher and the learners. It is however obvious that teacher educator are not properly motivated, but should not stop us from training and retraining to enhance ourselves, so as to keep abreast of time with the way things are done globally for qualitative teacher preparatory programme.

Teachers as facilitators of knowledge and it must be noted according to educational experts, (Skinner; Nelson, Polansky & Carson, 2000) that one of the basic truth in education is that the quality of education depends largely upon the quality of teachers. Whether the teacher is seated at one end of the log with the students at the other end; or whether the teacher is in the best equipped classroom of the most up-to date school, with the best state of the art facilities; whether the teacher is at work with a small number of students or is on a television screen that is viewed by a large number of learners, whether the teacher is what is seen in computer programme or programmed textbooks, there is likelihood that learners will not get quality education, unless the teacher is of good quality.

Therefore whatever inputs is made into an educational system in respect of training, resources and arrays of instructional facilities, will be of little importance if the product is unskilled, poorly trained or even ignorant of what to do during curriculum implementation process. Okoroafor (2010), argue that it is through training, especially in information

and communication technology (ICT), that teacher educators can develop their potentials and become ICT compliant, making use of various electronic platforms to reach out to their learners. Training and retraining of teacher educators cannot be over emphasized, this is because Nigeria, it is believed is blessed with qualified academics who are teacher educators, who only need some training in ICT to fast-track the nation's national development. Training will acquaint the individuals with new skills and knowledge that would enable them performs their duties more efficiently.

Recommendations

Since December 2019, the world has been battling another coronavirus, Severe Acute Respiratory Syndrome Coronavirus 2(SAR-COV2) which is responsible for the current outbreak of Coronavirus disease (Covid-19) and which is likely to remain with us for a little while. And because of this, it is unlikely that we will be experiencing a continued increase in the use of online platforms that that encourages virtual teaching in our educational system, most especially in our teacher preparatory programmes. Efforts should therefore be geared towards encouraging our teacher educators and teacher trainees to embrace the new technology in teaching so as to enhance teaching and learning, and also to encourage continuous interaction that results in the teacher trainees learning, even when they are separated in space and in distance from their tutors.

This is the reason why the teaching force is fundamental to the human, economic, social and political development of every nation. Therefore, a comprehensive and socially oriented teacher education programme is crucial for every nation. Curriculum implementation for teacher trainees should not be hampered, whether we have a pandemic or not. This is because if the teacher education programme is deficient, the teachers will be deficient as well the products of the system (learners) will equally be deficient, which has a grave consequences on the nation's educational system.

-The government should make available and within the reach of every households all the digital devices that are needed to make virtual teaching and learning accessible for both the teacher educators and the teachers in trainings. Digital devices should be heavily subsidized and make available for all entrant into the teacher education programme, so that no learners would be left out of the teaching learning process when it is time to go virtual during the teaching learning process. This, is

believed will go a long way in reducing the burden of the parents in providing digital devices (Computer, phones, internet etc) for the learners.

-More effort should be put in place by the government of the day to ensure the provision of constant and uninterrupted power supply to ensure the survival of virtual teaching and learning. Nothing can really be achieved in the world of digital learning, if there is no power supply to drive the innovation in the teaching learning process. More also, internet facilities should be provided in schools and also encourage the network providers to make internet facilities more affordable to the ordinary citizens, so that everyone can be a part of online teaching when it is time to go virtual.

-Continuous training and retraining of teacher educators should be encouraged so as to acquaint themselves with the latest technology in teaching which is 21st century compliant. This should be done through seminars, conferences, workshops as well series of training and retraining so as to familiarize teacher educators with strategies which are new in teaching, latest technologies that would make it easy for them to virtual when the need arises, as well other communication devices they have with them to their advantages as well adequate and proper use of communication devices such as the phones, I-pads, computers etc, so as to prevent mis-use or underutilization of these devices.

-It is a known fact that a lot of schools cannot find their way around online teaching during the Covid-19 pandemic, colleges of education inclusive. Therefore, there should be adequate monitoring and supervision by the NCCE to ensure that schools encourages online teaching and also make all facilities that would make virtual teaching possible. This is necessary because one of the antidotes to prevent the virus is to discourage clustering, which is a typical nature of our conventional classroom during the teaching learning process.

It has always been emphasized that “technology will not replace teachers, but teachers who use technology will probably replace teachers who do not”. Teachers who are lecturers found teaching at our colleges of education should therefore be up and doing to keep abreast of time so that they will not be left behind or found wanting in the new methods of teaching that the 21st century has bestowed on all of us.

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