Sustaining the educational sector through radio as a learning tool amongst secondary school students during COVID-19 lockdown

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Abstract

Providing quality and sustainable education for all is the ultimate goal of the United Nations Sustainable Development Goals (SDGs), 2030. Education gives people the knowledge and skills they need to stay healthy, get jobs and foster tolerance. The global education crisis is tied to the COVID-19 outbreak which severely affected children's learning and well-being. Lockdown during the COVID-19 emergencies was known to have serious effects on the continuity of the studies of secondary school students. This study looked at various challenges to educational broadcasting from radio stations in the state during the period of COVID-19 Lockdown, investigate how radio programmes align with the school curriculum and to know how radio education broadcast help students out of class room during COVID-19 Lockdown. Descriptive survey design was adopted for this study. The sample size of 100 teachers and 200 students from the selected secondary schools in Osun were arrived at through Taro Yamani. The research instrument used for data collection was questionnaire. The study therefore found out that radio educational programmes have impacted positively on the academic achievement of learners in secondary schools. These educational learning programmes helped in mitigating idleness and non-study of learners during the COVID-19 lockdown in the country. The study therefore recommended that the radio broadcasting station should enable source of information to increase educational programme, and also that the government of Osun state should encourage online lessons through social media and other online platforms.

Keyword: COVID 19, educational sector, lockdown, secondary school

1. Introduction

National development cannot be achieved without wide spread education for children and adults who are willing and able to make the time for it. Education is recognized globally as one of the many indices of development to attain the status of a developed nation (Patrinos, 2016). Ako and James (2018) posits that one 0000of the objectives of education therefore is to adequately equip the child with the necessary skills and knowledge needed for effective participation and contribution to national development. In other words, education provides the intellectual feat which is required for social, economic, political and technological development of a nation.

Goal 4 of the Sustainable Development Goals (SDGs), states the need for quality education for all. This generation of children could lose a combined total of 17 trillion dollars in lifetime earnings in present value (SDGs, 2022). Without mincing words, education is intended to improve the personal life of a person in terms of the knowledge and skills which he requires and which enhances his quality of life and contributes to the well-being of his society. Beyond the common goal of a society, certain goals are realized in areas of economic growth, healthcare, political

awareness and ambition, social awareness, self-reliance, personal identity, among other things, with education being used to set the foundation.

The COVID-19 pandemic has been one of the biggest disruptions to education that the world has ever known, affecting more than 90% of the world student's population (Okeke, Nwosu & Ono, 2020). The whole world had to result to a total lockdown as well as sit-at-home measure in order to contain the spread of the virus. The pandemic then led to the shutdown of every activity to include religious, business and even educational activities and many countries had to turn to online based distance education to ensure that learning never stops.

However, some 826 million students (50%) kept out of classrooms by the pandemic do not have access to a computer at home, according to a recent study by the UNESCO Institute of Statistics (UIS) and the Teacher Task Force. Around 706 million students lack internet access and 56 million live in areas not covered by mobile networks. Many countries Nigeria inclusive, had to quickly find effective solutions and Radio have proven to be a good alternative in a context where online learning is not possible and in respect to the use of Radio as a medium of learning, the Osun state government also made the decision to run Radio educational programmes that served as a continuation of the academic activities. As a result of lock down in both the state and the nation, the state government engaged in partnership with some broadcasting media organisations and stations within the state to run series of daily educational radio programmes targeted at specific classes to occupy and engage the school children, who due to the lockdown were scattered across the entire land mass of the state and in the comfort and safety of their homes, using the radio broadcasting system.

In the words of Babalola (2012), broadcasting is the mode of spreading information widely by sound and/or vision to a group of people either in their homes or at a listening or viewing centers and in schools through electronic devices of several kinds. Therefore, the broadcasting system is well suited for the task.

Though Radio broadcasting system is far reaching, cheap, and could be said to be the most accessible of the alternatives in terms of distance learning, the utilization of radio as a tool of learning during the period of COVID-19 Lockdown was faced with challenges such as:

1. Limited planning time due to the sudden emergence of the lockdown
2. Lack of enough competent teachers in the area of utilizing radio for the sake of education
3. The problem of evaluation by the end lesson
4. Problem of electricity power supply in the country
5. The inability to integrate all school subjects into to the programmes

Despite all these challenges, the government and the management of radio stations and some teachers still collaborated to ensure the broadcasting of educative programmes on radio. But it is not known how effective these Radio educational broadcasting programmes were. It is in the light of these that this study sets out to investigate the impact of radio broadcasting on learning amongst secondary school students during the period of COVID-19 lockdown.

Objectives of the study
The objectives of the study are to;

1. investigate the educational programmes on radio during the period of COVID-19 lockdown.
2. examine how radio programmes align with the school curriculum.

3. determine how radio education broadcast help students out of class room during COVID-19 lockdown.

Research Questions
1. What were the educational programmes on radio during the period of COVID-19 Lockdown?
2. How did radio programmes align with the school curriculum?
3. How has radio education broadcast help students out of class room during COVID-19 Lockdown?

2. Literature Review
Conceptual Review
COVID-19
The world has suffered from some pandemics that have brought its socio-economic activities to a standstill. The Corona virus disease (COVID-19) which is the latest pandemic the world is currently experiencing started out as an epidemic in Wuhan China in December 2019 and ended up as a pandemic that has thrown the whole world into a war like situation with thousands of deaths recorded in many countries, Nigeria inclusive (Okeke et al., (2020). Health systems are bewildered, local and global economies are at their worst in decades and the educational sector of the primary, secondary and tertiary institutions closed down (Okeke et al., (2020).

Many countries were quick to make difficult decisions and put in place lockdowns and key public health measures such as promoting physical distancing, good hand hygiene and testing, tracing of contacts of people with Covid-19 and isolation of cases. With the support of WHO and other partners, governments also rapidly started to scale up health workforce and laboratory capacities, and to set up points-of-entry screening at airports and border crossings (WHO, 2020). These public health and social measures have been effective in slowing the spread of Covid-19 in Africa (UKAID, 2020).

COVID-19 in Nigeria
The pandemic has been a shock and it presents a huge challenge to the education sector in particular, but the fundamental sense of confidence remains. Africa has faced similar health-related challenges before, with Ebola, HIV / Aids, Malaria and other devastating infectious diseases and it was comparatively well prepared for Covid-19 (UKAID, 2020).

The first case of COVID-19 was reported in Nigeria by the Federal Ministry of Health on 27th February, 2020. This was the case of an Italian citizen who works in Nigeria and returned from Milan, Italy to Lagos, Nigeria on the 25th of February, 2020. Since then, the number of confirmed cases of infection keep rising both in Nigeria and across the globe (Agbele & Oyelade, 2020).

The Consequences of COVID-19 and Lockdown on Education in Nigeria
The Covid-19 pandemic arrived in Africa at a time of growing optimism about the continent's future prospects. Many African economies had been enjoying sustained periods of growth at rates that were envied by countries in Europe, North America and even in Asia and the Pacific. There were ambitious plans to build on these promising foundations and 54 African countries had committed themselves to create the world's largest common free trade area – the African Continental Free Trade Area (AfCFTA). The African Union had set out a comprehensive vision for the future, Agenda 2063, which aimed to provide "a blueprint and master plan for transforming Africa into the global powerhouse of the future," entrenching sustainable growth and consigning poverty, conflict and disease to the past. At the heart of the plan was education and the desire for a "skills revolution underpinned by science, technology and innovation (UKAID, 2020).

The Novel Corona Virus pandemic has caused unimaginable situations which led to closures of educational institutions, manufacturing industries, aviation industries as well as the government ministries and parastatals. The pandemic has disrupted academic activities and has affected about 1.6 billion children and youths globally (UNHCR, 2020). Governments all over the world, despite fighting the pandemic medically are propounding solutions for continual teaching and learning of students who stayed at home in the period of lockdown (Bailaila and Kvavadze, 2020 as cited in Shettima et al., 2020). Lockdown during emergencies is known to have serious negative effects on the studies of pupils and students. Many students and pupils spend more time watching cable T.V programmes such as drama series, cartoons and movies than revising the notes books and this has impacted negatively on the academic achievement (Oyinyole and Adeleye, 2010 cited in Shettima et al., 2020). For now, Africa still only accounts for a small fraction of Covid-19 cases worldwide. But the pace of the spread is quickening. Swift and early action by African countries has helped to keep numbers

Radio as an Educational Tool of Distance Learning

According to Bhaskar & Sukmaya, (2017), educational radio gradually gained popularity because it was seen as a powerful tool to support education by supplementing printed texts with technology. Educational programmes were broadcast on radio by the British Broadcasting Corporation (BBC) for schools in1920. The first adult education programme to be broadcast on radio was a talk released by BBC in the year 1924 (Bhaskar & Sukmaya, 2017).

In distance learning, the use of high-quality radio programs has been found to be successful for expanding access and quality of distance education. Radio is used to teach students who are not in school, who are affected by conflict, who are orphans, who live in countries where most social systems have broken down or never existed—the poorest, least supported, and most remote learners to whom access to education has traditionally been denied and working class. It is also used in systems of huge scale, such as the more than 20 million learners (Ho & Thukral, 2009 as cited in Olakulehin, 2016).

The implementation of distance learning programmes which are aired on the television and radio networks as well as the internet through social networks and video conferencing served as a strategy for continued education at all levels of education (Ullah et al., 2014). Radio has been used extensively as an educational medium in developing countries. Educational radio has been utilized in Thailand, to teach Mathematics to school children, for teacher training, and other curricula. India, for rural development; Swaziland, for public health purposes; Mali, for literacy training; Columbia, for various programs; Mexico, for literacy training and other programs; Nigeria, for management courses for the agriculture sector; Kenya, in support of correspondence courses; Nicaragua, for health education; The Phillipines, for nutrition education. Sri Lanka, for family planning and health; South Korea, in support of family planning; Botswana, for civics education; and Paraguay, to offer primary school instruction (Olakulehin, 2016).

In general, the studies done in various countries where radio-based instructions have been provided to students in various subjects show a positive result. According to Jamison and McAnany (1978), the educational uses of radio fell into three broad categories: improving educational quality and relevance; lowering educational costs; and improving access to education (Olakulehin, 2016) just like in the case of

the COVID-19 lockdown when every student do not have access to classroom learning.

Theoretical Review
The Uses and Gratification Theory
Uses and gratification theory talks about how people use the media to satisfy their needs and it challenges the direct impact of the media on people. It affirms that as rational human being, people make choices of what they want and the possible media they can use to satisfy their need. The Uses and Gratification Theory was propounded by Elihu Katz, Jay Blumler and Michael Gurvitch in the year 1974 (Okeke et al., (2020). It explains how in other words; it relies on two principles about media users. people use the media for their own need and get satisfied when their needs are fulfilled. First, it characterizes media users as active in their selection of the media they consume. From this perspective, people don't use media passively. They are engaged and motivated in their media selections. Second, people are aware of their reasons for selecting different media options. They rely on their knowledge of their motivations to make media choices that will help meet their specific wants and needs.

The implication of this study is that people use the radio for the gratification of their educational needs. They are motivated to use the radio for their learning needs because perhaps it is affordable and simple to use. It is a mass medium that can be harnessed to enhance an education campaign since it can span great distances and reach a large number of listeners. Because of its wide coverage, relatively low unit cost, ability to reach those who are illiterate and without the use of mains power, it has proved to be an effective educational medium. The fact that it is non-visual can be harnessed to improve education quality since the listener is compelled to support the sound message by using his/her own imagination. No other medium has this educational power of stimulating and developing the abstract thinking of its audience and enriching and activating the listener's imagination.

Education stakeholders and the audience in general could be made aware of the cogent reasons that make radio suitable for teaching formal education to children in this period of the Covid-19 pandemic. The simplicity and affordability of radio could motivate them to make it their choice in meeting this specific need (Okeke et al., (2020). People use the media for their own need and get satisfied when their needs are fulfilled. This is in line with the Uses and gratification theory use to support this work. Media are to provide contents that will impact the lives of the listeners, especially, people who use the radio for the gratification of their educational needs.

3. Methodology
Research Design
The research design adopted for this paper is descriptive survey design. The population of this study is the entire students of Public Secondary Schools in Osogbo Local Government Area of Osun State. The reason for choosing this is that, the local government is at the capital of the state where there is concentration of radio stations and people of the state.

There are eight (8) public secondary schools in Osogbo Local Government, with a population of 9,046 according to the data gotten from the principals of those schools. Sample size of 300 was arrived at through the use of Taro Yamani. The three hundred (300) sample size was divided in to two hundred (200) students and one hundred (100) teachers to gather effective responses. Stratified random sampling technique was used to obtain sample size from the population.

The instrument used for this study is questionnaire and the data was analysed using both descriptive and inferential statistics. The descriptive statistics of

frequency counts and percentage were used to analyze the demographic data.

4. Results and Discussion

This chapter presents the analyzed data for the purpose of understanding the role of radio educational programmes amongst secondary school students during the covid-19 lockdown. The targeted sample size of 300 was administered copies of questionnaire.

Table 1: What were the educational programmes on radio during the period of COVID-19 lockdown?

Programme	Morning	Afternoon	Evening
Mathematics	51%	27%	22%
English	64%	22%	14%
Physics	58%	31%	11%
Chemistry	62%	25%	13%
Government	66%	23%	11%
Biology	58%	32%	10%
Agric-Science	61%	33%	6%
Lit-in-English	53%	28%	19%
Geography	62%	26%	12%
Economics	54%	27%	19%

Source: Researchers Computation, 2023

As shown in the table, radio education programmes during COVID-19 lockdown were schematically schedule over time morning, afternoon and evening. This table highlighted each programmes/subject which were aired over these periods. The least programme in the morning was mathematics 51%, the least in the afternoon 22% which was English and the least in the evening 6% which was Agric-Science. The highest programme in the morning is government with 66%, highest in the afternoon Agric Science 33% and highest in the evening mathematics 22%.

Table 2: How did radio programme align with the school curriculum?

Research Statement	SA	A	D	SD
1. Radio educative programme followed government approved syllabus	76%	21%	3%	0%
2. Students were allowed to submit assignments on the previous lecture	99%	1%	0%	0%
3. Good performance in assignments were rewarded	53%	34%	13	0%
4. Class work were solved by the teacher and the students graded themselves	61%	22%	10%	7%
5. Different teachers taught different subjects on radio	86%	13%	1%	0%
6. Verbal teaching aids were used in teaching during the teaching on radio	77%	14%	2%	7%
7. Students were allowed to ask questions during the teaching on radio through phone	99%	1%	0%	0%

Source: Researchers Computation, 2023

Table two shows that radio educative programme followed government approved curriculum as the programme allowed submission of assignments by the students and the class work is marked by the individual students after solving the

questions by the students. Different teachers were allocated to teach each subject for effectiveness and students could phone in to ask questions. Lastly, teaching aid were used to aid the learning by the students.

Table 3: How has radio education broadcast helped students out of classroom during COVID-19 lockdown?

Research Statement	SA	A	D	SD
8. The programmes were aired at times that were appropriate for learning	38%	44%	10%	8%
9. The period of the Programmes were too lengthy	22%	52%	14%	12%
10. My child/wardlearnt a lot from the Educational Radio programmes during the lockdown period	64%	20%	12%	4%
11. The Programmes were problem solving	48%	46%	2%	4%
12. The content of the Educational Radio Programmes complemented the content of my child/ward's school lessons	48%	40%	6%	6%
13. The Programmes gave assignment to the listeners	44%	44%	10%	2%
14. The Programmes evaluated the lessons thought	46%	38%	10%	6%
15. The Programmes were not well packaged	44%	18%	16%	22%
16. The Educational Radio Programmes should continue non-stop	44%	18%	12%	2%

Source: Researchers Computation, 2023

This table shows that the educative programmes were aired at time appropriate for learning, the programme was too lengthy and the educational programme was impactful.

The educational programme was problem solving, it complemented what the children/wards are been taught in school. The respondents equally agreed that the programme gives out assignment to students and evaluates all lessons taught.

The table also shows that the programme was well packaged and the larger number of respondents agreed that the radio educational programme should continue.

Discussion of Findings

As analysed from above the findings revealed that radio programmes to some degree was effective, it covers more than average of the content of the curriculum and from the findings most of what were run on air were in agreement with the school content curriculum. It was discovered that most of where the contents were not high like mathematics, physics, chemistry and biology, the practical aspect which were not effectively taught on the radio were neglected and others like English, Government, Lit-in English were almost covered and thoroughly taught, in fact radio as a veritable tool for distance learning was well commendable for engaging students in their studies during the COVID-19 lockdown.

Just as we have timetable in the school formal system setting, radio educational programmes have been tremendously performed well to appropriately schedule time for its listeners. Just as it was analysed above, the findings showed that the most preferably targeted time to arrest the listeners was in the morning where virtually all the programmes have the higher percentage of their aired time and repeating the programmes in the afternoon peradventure for missed out listeners in the morning, so also in the evening for the make-up for whosoever missed the

programme in the afternoon. The radio programme during COVID-19 has shown in the table was effective that no listener missed out in their daily programmes.

The findings from the research revealed that radio programmes have influence on continuation of basic education during the covid-19 lockdown. This finding is in conformity with the study conducted by Nwabara and Nwammuo (2009) who affirmed that radio programmes have positive impact on learners' study. According to Olumorin et al., (2018) radio and television programmes captivates the minds of the learners and they make new discoveries as they listen or view the programmes. Furthermore, Oliver and McLaughlin (1997), the learning programmes which are aired over the radio and television networks are produced according to the curriculum produced by ministry of education and the topics taught by the tutors are from the syllabus.

5. Conclusion and Recommendations

Radio learning programmes have great influence on basic education in Osun State. The devastating effects of COVID-19 pandemic have shut down all educational institutions throughout the world. The Governments of different nations of the world have put in place strategies that would allow continuous learning at home through the use mass media channels, social networks and the internet. In Nigeria, radio and television stations across the country broadcast learning programmes in collaboration with the Federal and State ministries of education so that learners could have the opportunity to study at home to prepare themselves for final examinations. This strategy will assist enormously for learners to acquire knowledge, helps in mitigating the spread of the diseases as well as saving them from the deadly disease.

Based on the conclusions, the following recommendations are made:

1. Radio broadcasting station should increase educational programme chances of survival
2. Government should encourage online lessons through social media and other online platforms.
3. The educational programmes should be free-to-air channel available on service providers.
4. Each lecture should have a mix of quizzes, games, exercise and feedback.
5. Parents should be encouraged to have smartphones.

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