### EMERGENCY REMOTE TEACHING DURING THE COVID-19 LOCKDOWN: A FOCUS ON ENUGU SCHOOL, ON THE RADIO PROGRAMME OF THE FEDERAL RADIO CORPORATION OF NIGERIA (FRCN)

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#### **Abstract**

Global digitization of learning mitigates the education loss caused by school-closures during the COVID-19 lockdown globally, but few studies examine the awareness and participation level of the target audience, as well as factors that influence their participation and engagement level to address such concerns. To fill this gap, we adopted a mixed method approach on "Enugu School on Radio Program of FRCN" using 184 senior secondary school students from public schools and 192 senior secondary school students in private schools. We found that students in both schools are highly aware of Enugu School on Radio (71% and 78%) respectively. Despite this high level of awareness, only 13.9% of participants in public schools and 20.7% of participants in private school participated actively in terms of submitting their assignments to teachers for evaluation. This study also reveals that there are varying factors to these effects: ranging from a lack of trust on the part of the students (15%, 14%) to a lack of access to internet/digital devices especially for participants in public schools (34%), as opposed to (21%) for those in private schools. The study also exposed that lack of parental support especially for students in private school (39%) and 33% for public schools hindered the participants from participating actively. The students in public schools who didn't participate because they normally forget it is at (12%), while in private school it is at (11%). We argue that helping students to have access to the internet/digital devices as well as maximum parental support with sufficient campaign on perceived benefits of remote/online learning from media practitioners will burst students trusts/ participation in remote/online learning.

**Keywords:** COVID-19, Lockdown, Emergency, Remote, Programme.

#### 1. INTRODUCTION

The right to education is most at-risk during emergencies, but it is also the exact time that it is highly needed (EDUCATION CANNOT WAIT, 2020). COVID-19 related school closures

have cut off access to teaching, learning materials and the internet for the most vulnerable children. As the virus deepens the learning crisis, education budgets must be protected and focus on the poorest children, especially those in rural areas (UNITED NATIONS, 2020). Lockdown measures reduce opportunities for children to participate in extra-curricular activities, to come in contact with supportive adults at school and in the community. Given the suddenness of the COVID -19 crisis and its impacts on the education system, it clearly appears that response is a matter of urgency, government and school administration must rethink remote learning with inclusive lens (WORLD BANK, 2020). Inclusive lens, according to the World Bank (2020), includes giving every child, whether with disability or not, access to the same opportunities away from the classroom. Even though online/remote learning enabled children to continue learning from home, the poorest children are least likely to live in a learning environment with a good internet connection (GOTTSCHALK, 2019).

Education must come first because it is critical to human development. All children, no matter where they live or whatever their circumstances, have the right to quality education (UNICEF, 2013), Sustainable Development Goal 4, targets inclusive and equitable quality education and promotes lifelong learning opportunities for all (UNITED NATIONS, 2015, 2020; O'KEEFFE et al., 2011). Because it is the key to personal development and the future of the society, it unlocks opportunities and narrows inequalities, EU

commissioner, Jutta Urpilainen explained that it brings great returns in terms of human development and poverty eradication, it must be free and compulsory (OLAKANMI, 2008; AVILES & EASTMAN, 2012) because it is an enabler to other rights and a popular quote by Mandela says, "education is the most powerful weapon that can be used to transform the world." The import of this is that education is everything to the people and therefore it should be accorded a proportional interest.

It is a means for upward socio-economic mobility (UN, 2020). UNESCO (2007) affirms that the aim of education is to promote personal development, strengthen respect for human rights and freedoms, enable individuals to participate effectively in a free society, and promote understanding, friendship and tolerance. It is an important mechanism for enhancing the health and well-being of individuals, it reduces the need for health care, the associated costs of dependence, lost earnings and human suffering. It also helps to promote and sustain human relationships and personal, family and community well-being (LEON et al., 2006; BARNES & JACOBSON, 2012).

Schools do much more than teach children how to read, write and count. They also provide nutrition, health and hygiene services, mental health and psychological support and they dramatically reduce the risk of violence, early pregnancies and more. Those with more years of schooling tend to have a better health and well-being and healthier behaviours. The low educational standard is responsible for terrorism in Nigeria. According to this author, most of the educational facilities in many public schools and institutions are not in line with global the best practices. He further noted that the social ills in the country today, may be as a result of the low standard of education and called for a total overhaul of the Nigerian education sector for a better society.

In several countries, including France and the United Kingdom, access to free or wellsubsidized school meals is major plank of the policies to combat child poverty. Similarly, in the United States, students supported by the National School Lunch Program were found to get more than one third of their daily calories from the food and drinks provided at school (STORY, 2009). In the same way, Nigeria School Feeding Program (NSFP) improves children's school attendances, reduces hunger among Nigerian school children, improve the nutritional health status, increases retention and completion particularly of the children in rural communities (AJANI, 2009). When schools are closed, beneficiary children eat less and also consume less nutritious food, a phenomenon known as holiday hunger (NORD & ROMIG, 2006, MORGAN et al., 2019).

It is the desire of every society to achieve a sustainable level of economic development. This could be possible through embarking on entrepreneurial activities by the citizens of the society. SULAYMAN & AKAEZE (2014) explained that the success of a society in entrepreneurship depends on the education acquired by the entrepreneurs. Closely, there is a synergy between the educational system and the political development because an observed failure in educational system hinders political growth (LEONE, 1981) and no government or country will develop above its educational system (ADEDAYO, 2015).

Schools worldwide now invest a lot on internet access because it reduces the time between the production and utilization of knowledge, improves co-operation and gives students access to enough information, it makes learning processes more open and methodologies more flexible, thereby making students independent and self-determined (GOODE, 2007). Internet allows teachers to promote active learning and become facilitators of the learning process, it enables students or student organizations to share ideas, co-create, modify and discuss user-generated content or previous contents posted online (JAFFAR et al., 2019).

School closures meant that access to the digital environment is essential for children's education, peer-socialization, play, entertainment and self-expression. Policy makers will need to address two major concerns: i) how to ensure widespread access to digital technologies so that all children can exercise their rights; and ii) how to mitigate against increased risk which may arise out of the increased use of the digital technologies.

Cross national trends suggest that younger children are increasingly using digital technologies and the age of first use is dropping (HOOFT, 2018) and many pre-schoolers become familiar with digital devices before they are exposed to books (HOPKINS et al., 2013).

Children are enthusiastic users of social media sites, apps, and chatrooms such as TikTok, Instagram, Snapchat, WhatsApp, Facebook and Myspace where they can share personal data and connect with friends and classmates (UNDIYAUNDEYE, GOTTSCHALK, 2019). The digital environment offers opportunities for children, such as allowing them to express themselves, see examples of what they are learning, acquire information, knowledge and socialize with peers (PREETI, 2014, GOTTSCHALK, 2019), while watching age-appropriate, high-quality programming may promote certain cognitive benefits. Co-viewing (which represents engaging in screen time with a parent or caregiver) can enhance infant attention and propensity to learn from screen on-screen contents (GOTTSCHALK, 2019), but an unsupervised use of the digital tools involves risks to children's health and well-being.

Having realized these unique attributes of technology/internet and its benefits to education, it is necessary to evaluate or access the demographics and the number of children benefiting from it as broadcast station (FRCN) embarked on remote learning during the COVID-19 lockdown in Enugu, Nigeria.

#### 2. STATEMENT OF THE PROBLEM

Lockdown and Social distancing measures due to the COVID-19 pandemic led to closures of care, school, training and higher education facilities in most countries in other to flatten the curve (Trade Union Advisory Committee, 2020). These closures interrupted the learning of almost all the world's 1.5 billion from preprimary to upper secondary school students; governments and education stakeholders responded swiftly with remote learning policies that directed educators to use delivery channels

that included digital tools, TV/radio-based teaching, and take-home packages so that students could continue to learn (UNICEF, 2020). Enugu State Government, just like its counterparts, adopted a range of interventions by switching over to broadcast and digital learning for primary and secondary school students known as "Enugu School on Radio" in which the morning section was designed for primary school students and the evening section for secondary school students. In carrying out this study, the researchers seek answers to the question "who is the real audience?" Each time researchers tune into the radio station (FRCN) and/or log onto their social media websites, "@enuguschoolonradio", every thought is geared towards addressing this major theme of understanding the demographics of the audience listening to "Enugu school on Radio" and the number of children benefiting from remote learning, irrespective of the medium the student adopted. Several studies have delved into the role of radio and digital technologies in mitigating the education lose caused by the COVID-19 lockdown, but a few have tried to find out if the target audience actually participated in the education program. To fill this gap, researchers designed four research questions that guided this study.

#### **Research Questions**

The following research questions guided the study:

- 1. Are senior secondary school students in Enugu state aware of the Enugu school on radio programme of FRCN during the COVID-19 lockdown?
- 2. How did they participate in the Enugu school on radio programme of FRCN during the COVID-19 lockdown?
- 3. What factors influenced their participation in the Enugu school on radio programme of FRCN during the COVID -19 lockdown?
- 4. Are there any differences in the factors that influence their participation in the Enugu school on radio programme of FRCN during COVID 19 lockdown?

#### 3. EMPIRICAL REVIEW

# 3.1. The Impacts of School-Closures in Controlling the Spread of Diseases During an Outbreak

Non-scientific or non-pharmaceutical preventive measures like social-distancing and self-isolation have resulted in the widespread closure of primary, secondary, and tertiary schooling in most countries of the world, with Nigeria not exempted. Previous studies on school closure during pandemics provided empirical evidence that it helped to reduce the spread of a virus especially among students during an outbreak. Schools closed for a median duration of 4 weeks according to a study of 43 US cities' response to the Spanish Flu (NINA & RILEY, 2020). According to them, flu cases continued to mount until finally, on October 3, schools, churches, theatres, and public gathering spaces were shut down. School closures were shown to reduce morbidity from the Asian flu and considered appropriate by 91% during the outbreak of Influenza B (JOHNSON et al., 2008). Multiple countries successfully slowed the spread of infection through school closures during the 2009 H1N1 Flu pandemic (CAUCHEMEZ, et al., 2014). NINA & RILEY (2020) suggest that class closure should be taken into consideration when the rate of student absenteeism due to infection reaches approximately 15-20%. School closures in the city of Oita, Japan, were found to have successfully decreased the number of infected students at the peak of infection. GERARDO, et al. (2011) estimate that the 18-day period of mandatory school closures and other social distancing measures implemented in the greater Mexico City area was associated with a 29% - 37% reduction in influenza transmission in spring 2009.

JACKSON et al., (2009) concluded that school closures appear to have the potential to reduce influenza transmission, but the heterogeneity in the data available means that the optimum strategy (for example, the ideal length and timing of closure) remains unclear. During the swine flu outbreak in 2009 in the UK, in an article titled "Closure of schools during an influenza pandemic" a group of epidemiologists endorsed the closure of schools in order to interrupt the course of the infection, slow further spread and buy time to

research and produce a vaccine. Having studied the previous influenza pandemics including the 1918 flu pandemic, the influenza pandemic of 1957 and the 1968 flu pandemic, they reported on the economic and workforce effect school closure would have, particularly with a large percentage of doctors and nurses being women, half of whom had children under the age of 16. They also looked at the dynamics of the spread of influenza in France during French school holidays and noted that cases of flu dropped when schools closed and re-emerged when they re-opened. They noted that when teachers in Israel went on strike during the flu season of 1999-2000, visits to doctors and the number of respiratory infections dropped by more than a fifth and more than two fifths respectively.

Even when school closures are temporary, it carries high social and economic costs. The disruptions they cause affect people across communities, but their impact is more severe for disadvantaged children and their families including interrupted learning, compromised nutrition, childcare problems and consequent economic cost to families who cannot work. As discussed in the introduction, schools do much more than teach children how to read, write and count. They also provide nutrition, health and hygiene services, mental health and psychological support, and dramatically reduce the risk of violence, early pregnancies and more. When schools are closed, children benefiting from school feeding eat less and also consume less nutritious food, a phenomenon known as holiday hunger (NORD & ROMIG, 2006; MORGAN, et al., 2019; GERHARD, & MAYR, 2002; TESS, 2013).

## 3.2. Technology-Mediated Teaching and Learning

In response to the unprecedented educational challenges created by school closures due to the COVID-19 pandemic, more than 90% of countries have implemented some form of remote learning policy (UNICEF, 2020), shifting learning to remote and online format but the levels, methods, and choice of remote learning technology to be used to achieve quality remote or online learning are varied and appears to be influenced by the country's income group and target audience (UNICEF, 2020; HALADU, 2008).

Even in our mobile, digitally saturated age, radio is still the most commonly available and accessed technology across the globe (BURNS, 2020). UNESCO (2012) highlights the arguments presented by Burns, that radios are everywhere, with at least 75% of households in developing countries having access to it.

Along with radios, mobile phones are one of the most accessible forms of technology, covering over 70% of the world's population. Training via such technology can be particularly beneficial for women who are restricted from attending regularly scheduled classes (UNESCO, 2020). NGWU et al. (2015) supported the above assertion but outlined poverty, illiteracy, absence of GSM network providers and cultural influences as impediments to the usage of mobile phones, especially among rural dwellers.

Children are heavy consumers of social media (AGNEW, 2014). While data regarding usage varies, children aged 8 to 18 use social media on their mobile devices for an average of almost eight hours a day (AGNEW, 2014). The American Academy of Paediatrics (2011) found in their pool that 22% of American teenagers admit to logging onto their favourite media sites more than ten times a day. It can be inferred that irrespective of which study is consulted, children and youth spend a significant amount of time using social media. The big question now is "what do they do while surfing the internet?"

EDTECHMAGAZINE (2010) show "64% of students use social media to 'connect with classmates,' to study or work on class assignments, at least several times per month. 41% use social media to 'study or work on class assignments,' at least several times per month. 27% use Social Media to 'connect with faculty to study or work' on class assignments, at least several times per month". The security software company AVG, which conducted a research project in 2011 on children between the age of six to nine, discovered that 64% of United Kingdom's children, and nearly 46% of Germany's children, and an estimated 37% of the French children are well versed in the use of the social network applications functions on the internet with sites for example, Club Penguin, and Webkinz (EMARKETER, 2011). According to HRASTINSKI et al. (2010), "Synchronous media were argued to be more useful to support tasks and exchanges such as planning work." social media is useful for learners' interactions, which fulfils different cooperative/collaborative purposes, by enabling them to see receiver's reactions and get the results right away" (HRASTINSKI, 2007).

### 3.3. Perceived Risk of Remote/Online Learning

According to NAGHMEH (2010), all students were frequent social media users and used media almost every day. Nevertheless, only a quarter of them are using social media frequently for academic purposes, to support their educational interactions. According to him, students use social media mainly for their personal communications with their friends, family and other contacts, and not so related it to their academic life.

Some authors revealed in their findings that 93.8% of respondents admitted that there are instances where students engage in social networking while classes are on. This means that spending time on social media interferes with the ability to study or complete assignments. NWANNE (2015) echoes the above results as she revealed that students under the guise of searching for valuable academic materials for their studies, spend hours on the net, at no avail. There are various risks involved with children using the Internet, and this depends on how the parents monitors their children' activities. THROPE & GODSWIN (2006) cautioned that it is important to be mindful of using ICTs for educational purposes, as they may have positive and negative impacts on the students. GODWIN et al., (2008) asserted that to establish appropriate pedagogical design that effectively utilizes ICTs for education, we need to have an understanding of how computer-mediated interactions can be used to support the learning processes with a particular course. The children are known as the Digital natives (PRENSKY, 2001; FRIEDMAN & FRIEDMAN, 2013), of this current generation, whereas the previous generation is called the digital immigrants, which some have no clue about what their children are doing while being

online, whom they meet, whom they talk to, what games they play and what sites they visit. Opponent of this view Young Children (2015), highlighted that there are various concerns from the parents' perspective on their children' Internet activities. The parents are concerned and try to find ways to keep an eye on their children. According to this study, the internet is like fire, if properly utilized, the gains are exponential. On the other hand, the misusage of the internet can destroy the society by destroying the lives of children making them irresponsible adults. The study emphasized that internet offers children and the society more benefits than the demerits and concluded that the responsibility to protect children from internet harms falls on everyone. This means adults, the state and the institutions such as schools and any other areas where students spend time and have access to the internet. However, the greatest responsibility lies with parents who have the best opportunity to monitor children and control their behaviour. The onus according to the study first lies with the parents to regulate the amount of time children spend on the internet, what they have access to and what they can do while on the internet.

Even with newer ICTs (social media), there is still evidence that those adopted by educators are similarly being used primarily to disseminate information and not to get feedback (MORAN et al., 2011). They found in their studies that, while almost 35% of the faculties indicated that they have required students to watch online videos, less than 10% have reported requiring students to make video posts themselves. By implication, this may simply mean that social media or ICTs is used for information dissemination without caring much on how to get feedback. In some studies was explained that it is a mistake to think "that the goal of education is to stuff all kinds of facts, techniques, methods, and information into the students' minds, regardless of how and with what effects it will be used". Despite remote learning policies and the kind of technologies adopted by the education stakeholders, UNICEF (2020) estimated that at least 463 million students around the globe remain cut off from education, mainly due to a lack of remote learning policies, lack of equipment needed for learning at home, skill gaps among their teachers or a lack of parental support.

If you are in face-to-face, you can see your classmates easily, but when you are doing distance learning, it is a little more difficult (NAGHMEH,2010; MICHEAL, 2014). Furthermore, MCDOOL et al. (2016) mentioned that 75% of children between ten and twelve years old create social media accounts by falsifying their birthdates during registration.

Another challenge with appropriating technology for educational activities is articulated by WAGNER (1994) who observes that "interest in technologies should focus on this ability to expand opportunities for interactive communication; however, fascinating with what the technology do often supersedes the broader issue of teaching and learning".

The most important adjustment for those used to teaching in classrooms in real time is to take advantage of the asynchronous learning (JOHN, 2020). In asynchronous learning, students do not have to communicate simultaneously, rather, it gives teachers flexibility in preparing learning materials and enables students to juggle the demand of home and study. He further added that asynchronous works better in digital formats because teachers do not need to deliver materials at a fixed time, rather lessons can be posted online for on-demand access and students, on one hand, can engage with it using all kinds of social media app that suit their schedules while teachers, on the other hand, can check on students' participation periodically and make online appointments for students with particular needs or questions. Creating an asynchronous digital classroom gives teachers and students more room to breathe (JOHN, 2020).

While it is important to continue to orient students' learning to the classroom curriculum and the assessments for which they were preparing, it is also vital to maintain students' interest in learning by giving them varied assignments (JOHN, 2020).

#### 4. THEORETICAL REVIEW

#### 4.1. Technology Adoption Model (TAM)

This theory suggests that when users are presented with a new technology, a number of factors influences their decision about how and when they will use it. It is an information system theory that models how users come to accept and use a particular technology. Different theories and models exist in Information System (IS) research to examine the variable that influence the adoption of new technologies (RASHIDI et al., 2020).

This theory is like an umbilical cord holding this study because a number of factors influenced the students' decisions to participate in remote learning. While decisions of those in public schools to participate in remote learning was influenced by the availability of digital devices and internet, the decisions of students at private schools were mostly influenced by the parental engagement in their studies.

#### 4.2. Methodology

The mixed method approach involving participant observation, structured questionnaire as well as secondary data sources were used to achieve a comprehensive and in-depth understanding of the level of awareness, participation and factors influencing participation of senior secondary students in Enugu in remote/online learning.

#### i. Participant observation

Researchers, in an attempt to encourage their children develop a keen interest in following the programme, participated actively in listening to the programme, recorded it for replay whenever the children are willing to listen and also assisted in writing down assignments and teachers phone numbers for the children to ask questions and also summit assignments. This method helped the researchers immensely in drawing the children's attention towards the teaching on radio during lockdown.

#### ii. Quantitative Approach

A well-structured questionnaire was used to collect quantitative data, which answered the research questions. Researchers were able to reach students through their research assistants who are teachers in the selected schools. The distribution of the questionnaire copies took place in February 2021, when schools in Enugureopened fully and all forms of ban and restrictions were lifted by the state government,

but students and teachers are mandated to wear a mask.

#### iii. Qualitative Approach

Researchers searched various archives, libraries, and the internet to gather more information about school closure during an outbreak and children learning on air during lockdown. They also searched discussion sites, Facebook comments to get news and more information about children learning on air, especially during an outbreak and or lockdown.

#### Population of the Study

The Population of the study was made-up of the entire senior secondary school students in Enugu State from which a representative sample was drawn. According to the Enugu State Ministry of Education 2018/2019 school census, it has a population 175,190 students with 84,198 in public schools and 90,992 in private schools (senior secondary schools).

Therefore, the population of this study is 175,190 students (senior secondary schools) from the Enugu state. The study covered only senior secondary school students from the six (6) educational zones of Enugu state, six (6) schools were purposively selected to enable researchers represent the views of the all students, both in urban, suburban and rural settings and public and private schools alike. The rationale for this selection is the location of the school and a mixed school (male or female).

#### 4.3. Sampling Size and Technique

In this segment, the researcher opted for the selection of a manageable and representative sample size because of the largeness of the population (175,190). A sample of 384 was drawn using online sample size calculator advanced by Wimmer and Dominick (2013) with a confidence level of 95% and a confidence interval or margin of error of 5.0%.

The probability sampling technique was employed in the study, with particular reference to the multi stage sampling technique. This technique requires that at each stage of sampling, two or more techniques can be employed. Thus, three major techniques were used: the cluster

sampling, purposive sampling and the simple random sampling techniques.

In this study, a cluster already exists from the six educational zones of the state. From the six educational zones Enugu, Agwu, Agbani, Nsukka, Udi and Udenu, where there are 156 schools in Enugu zone with 30 public schools and 126 private schools, Agwu zone has a total of 82 schools with 43 public schools and 39 private schools, Nsukka zone has 157 schools with 60 public schools and 97 private schools, Agbani zone has 133 schools with 43 public schools and 90 private schools, Udi zone has 133 schools with 65 public schools and 68 private schools while Udenu has 136 schools with 49 public schools and 87 private schools. Therefore, from a total of six educational zones, the copies of the questionnaire were distributed randomly by the research assistants (teachers) in the schools.

#### 4.4. Data Analysis

The copies of the questionnaire were distributed equally among the public and private schools

Table 1. Questionnaire Distribution by Sex

Item	Frequency for public Schools	Frequency for private Schools	Percentage for public schools	Percentage for private schools
Male	80	65	42%	34%
Female	104	127	54%	66%
Number missing	8	-	4%	-
Total	192	192	100%	100%

The corresponding graphical representation is shown in fig 1

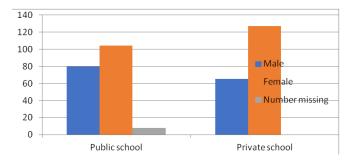


Fig. 1. Graphical Representation of Questionnaire distribution among public and private schools

Table 2. Age Distribution of Respondents

Age Distribution of Respondents	Frequency for public Schools	Frequency for private Schools	Percentage for public schools	Percentage for private schools
13 - 14	27	12	15%	6%
15 – 17	138	142	75%	74%
18 - above	19	38	10%	20%
Total	184	192	100%	100%

The corresponding graphical representation is shown in Fig. 2.

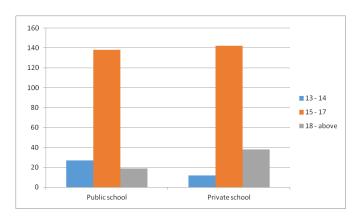


Fig. 2. Graphical representation of age distribution among public and private schools.

Table 3. Class Distribution of Respondents

Class Distribution of Respondents	Frequency for public Schools	Frequency for private Schools	Percentage for public schools	Percentage for private schools
SS 1	92	38	50%	20%
SS 2	65	36	35%	19%
SS 3	27	118	15%	61%
Total	184	192	100%	100%

The corresponding graphical representation is shown in Fig 3.

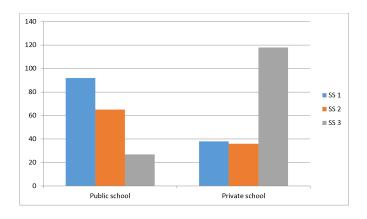


Fig. 3. Graphical representation of class distribution among public and private schools

Table 4. Respondent that are aware of Enugu school on Radio

Do you hear about Enugu school on Radio?	Frequency for public Schools	Frequency for private Schools	Percentage for public schools	Percentage for private schools
Yes	142	150	77%	78%
No	42	42	23%	22%
Can't say	-	-	-	-
Total	184	192	100%	100%

(Source: Field work, 2021)

Table 5. Distribution of responses on participation in the classes

Items	Frequency for public Schools	Frequency for private Schools	Percentage for public schools	Percentage for private schools
Yes	84	92	45.7%	47.9%
No	100	100	54.3%	52.1%
Total	184	192	100%	100%

(Source: Field work, 2021)

Table 6. Respondents that participated in morning or evening section

Which section did you participate?	Frequency for public Schools	Frequency for private Schools	Percentage for public schools	Percentage for private schools
Morning section	34	46	40%	40%
Evening section	42	42	50%	58%
All of the above	8	4	10%	2%
Total	84	92	100%	100%

(Source: Field work, 2021)

Table 7. Respondents' rating of participation

Items	Frequency for public Schools	Frequency for private Schools	Percentage for public schools	Percentage for private schools
Actively	23	53	53%	57%
Passively	38	27	21%	29%
Can't remember	23	12	26%	14%
Total	84	92	100%	100%

(Source: Field work, 2021)

Note: The **Active participants** are those who joined the evening section and also summited their assignments to a teacher for evaluation.

The **Passive Participants** are those that joined both morning and evening section but mostly the morning section without summiting their assignment to a teacher for evaluation.

Table 8. Distribution of responses on whether they called any teacher to ask questions or summited assignments for evaluation

Items	Frequency for public Schools	Frequency for private Schools	Percentage for public schools	Percentage for private schools
Yes	11	19	13.9%	20.7%
No	65	69	76.1%	75%
Can't remember	8	4	10%	4.3%
Total	84	92	100%	100%

(Source: Field work, 2021)

Table 9. The device used by respondent during the Enugu School on Radio program

Which device did you use?	Frequency for public Schools	Frequency for private Schools	Percentage for public schools	Percentage for private schools
Radio set	57	38	68%	41%
Mobile phone radio	15	46	18%	50%
Lap top/desktop/smartphone(Internet)	12	8	14%	9%
Total	84	92	100%	100%

(Source: Field work, 2021)

Table 10. Factors that hindered the respondents from participating in Enugu School on Radio program of FRCN

You heard about it but didn't participate, why?	Frequency for public Schools	Frequency for private Schools	Percentage for public schools	Percentage for private schools
I don't trust remote/ online learning	27	26	15%	14%

Parents didn't remind me	60	75	33%	39%
I normally forget	20	22	12%	11%
I don't have access to radio	15	29	8%	15%
I don't have access to internet/digital devices	62	40	34%	21%
Total	184	192	100%	100%

(Source: Field work, 2021)

#### 5. DISCUSSION OF FINDINGS

Participants Demographic Information

The questionnaire copies were distributed among senior secondary school students. It was purposively distributed between public and private schools in the six educational zones of the state to compare their level of participation in the program. Demographic information from both public and private schools were received. Table 1, 2, & 3 provided basic information about participating students' sex, age and marital status. The findings from the study show that 42% of the respondents are boys in public school, 54% are girls, while in private schools, boys are 34% and girls are 66%. By implication, most of the respondents in this study are from private schools and the majority of them are girls. In terms of marital status, all respondents from both public 184 (100%) and private school 192 (100%) revealed that they have neither married nor divorced in spite of 10% and 20% of respondents both in private and public school having reached the marital age (18 & above) See table 2. This shows that child marriage in the state has reduced to a very great extent and girls' education became a priority in the state as well.

Research question one was designed to find out the level of awareness of secondary school students in Enugu state about the Enugu school on radio during the COVID-19 lockdown in the state. In table 5, the respondents were asked if they heard about the program. The findings revealed that in public schools, 77% of the respondents are aware, while 23% were unaware.

This result is not quite different from the private school, as 78% of the respondents are aware while 22% were unaware. This finding shows that most participants in the study are highly aware of the Enugu School on radio program of FRCN, irrespective of their school and or its location. This aligns with the idea (UNESCO, 2012; BURNS, 2020) that radios are everywhere, with at least 75% of households in developing countries having access to it. In general, the majority of the respondents who filled out the survey heard about the program, suggesting they are above average taking into account the level of awareness.

In research question two, researchers tried to find out how they participated in the program. Table 6, 7, 8, and 9 provided an answer to the question. When asked if they participated, 45.7% of participants in public school revealed that they did, while 54.3% did not. In the private school, 47.9% participated, while 52.1% did not. This suggests that participants' engagement level in remote learning (Enugu School on Radio) is below average. In line with this finding, UNICEF (2020) estimated that despite remote learning policies and the kind of technologies adopted by the education stakeholders, at least 463 million students around the globe remain cut off from education because of various factors.

When trying to find out the section the students participated in the program: 40% of the respondents in public school participated in the morning section, 50% evening section, while 10% participated in all. In private school, the case is almost similar as 40% participated in the morning section, 58% in the evening section, while only 2% participated in all. This is a worrisome situation because even though the respondents participated in the program, 40% of the participants respectively participated in the program designed for primary school students See Statement of the Problem and table 7. Furthermore, in table 8, students were asked to rate their participation level, 53% of the respondents in public schools participated actively, 21% participated passively, while 26% can't remember. In the private school, 57% participated actively, 29% passively and 14% can't remember. What is obvious here in table7 is that 40% of the participants respectively engaged in a program not capable of building their educational carrier as those preparing for WAEC, to join higher institutions and societal demand. Prior research (NAGHMEH, 2010) finds that all students were frequent media users and used media almost every day. Nevertheless, only a quarter of them use media frequently for academic purposes. THROPE, et al (2006) also cautioned that it is important to be mindful of using ICTs for educational purposes as they may have positive and negative impacts on the students.

Also, for a better understanding of how students participated in the program, the respondents were asked if they called any teacher to ask questions or summited their assignments to any teacher for evaluation and marking. This was one of the criteria in participating in the program which researchers discovered through observation to help promote teacher-student interactions. According to the findings, 13.9% of the respondents in the public school revealed that they carried out the task of reaching out to a teacher to evaluate their assignments, 76.1% revealed that they didn't reach out to any teacher for questions or the submission of an assignment, while 10% can't even remember whether they were able to carry out the task. In the private school, we discovered that 20.7% of the respondents carried out the task, 75% didn't reach out to any teacher for the task, while only 4.3% said they can't remember. Going by the information available, students in both public and private schools in Enugu didn't maintain an effective interaction with their teachers during the Enugu school on Radio program in the state and an also greater percentage (76.1% and 75%) of the respondents didn't participate actively. By implication, the participant engagement level was below average. Orr, 1991 and MORAN et al., 2011 state that even with newer ICTs, there is still evidence that those adopted by educators are similarly being used primarily to disseminate information and not to get feedback. Also, the findings of NAGHMEH, 2010 and MICHEAL, 2014 proved that students in a face-face learning environment interact with their teachers and classmates more than those in distance learning.

Using participant observation, this study revealed that students were given varied assignment at the end of each lesson. John, 2020 supported that it is also vital to maintain students' interest in learning by giving them varied assignments. While this study reveal that students were always asked to take a photo of themselves while taking the lessons at home and post it in a WhatsApp page as proof of their engagement in the lessons, MORAN et al., 2011 opposed in their study that less than 10% reported requiring students to make video posts themselves when participating in distance learning.

Research question three was centred on factors that hindered the respondents from participating in the program. What factors hindered student engagement in remote learning? An overview of the findings from our investigation projected that two major factors are most closely associated with student engagement. The findings vary depending on children's devices/ internet access and parental support. One major factor for students in the public school is access to digital devices/internet (34%) compared to the students in private schools (21%). Even though we didn't generate data on the economic strength of the respondents' families and whether Internet Access at Home (IAH) has connection with students educational performance and grades, some authors explained that members of disadvantaged communities are often on the wrong side of the multilevel and multidimensional digital divides in terms of Internet access, use, skills, and positive returns (They are less likely to engage in "capital-enhancing uses of the Internet" to achieve upward social mobility. The available evidence suggests that having a home computer or educational resources in the home is linked to somewhat better academic performance, and is mostly influenced by the parental income and level of education (JACKSON, et al.; 2006; LUCAS et al., 2020).

Another impediment to students from the public school is that parents didn't come in to remind them of it. The situation is higher for students in the private school as the results show that their parents are less engaged with their children's home learning (48%) compared to (33 per cent) of those in the public school who said that their parents didn't remind them. Little wonder (PRENSKY, 2001) mentioned that some parents have no clue about what their children are

doing while online. This is likely to be influenced by the availability of the digital devices to the private school students. Parents of secondary school students are more inclined to think that their children are able to manage their own remote/online learning since the devices are available to them. They further explained that the parents of secondary school students (private) may feel that they do not need to be directly engaged because they expect their children to be able to manage their own remote/ online learning. Contrarily, in some studies is shown that internet can be a positive influence on children if parents and other adults get in when children get access. Overall, private school students (senior secondary) in Enugu tend to have lower levels of parental encouragement (48%) than the students in public school (33%), while students in public school have lower participation level due to lack of access to internet/digital devices. There are 15% of the respondents from the public school who didn't participate because they don't trust remote learning, while the percentage is 14% is in the private school. In line with this, (NAGHMEH, 2010; MICHEAL, 2014; UCHIDA et al., 2013) explained that social media cannot compensate instructors' knowledge transfer to the students. "Some instructors according to them think that with utilization of technology and uploading extra information, there is no need to the extra lectures anymore," however, students believe that online data would not be as helpful as traditional lectures or seminars. Social media, as they emphasized, makes students lazy to go out, have face-to-face communications, and ask their questions to learn more. It makes them less active and social." Many interviewees in their study believe that by using social media, there will be less human interaction; therefore, it cannot be as interactive and effective as the direct contact. More so, 12% of respondents in the public school didn't participate because they normally forget while in private schools, the percentage of respondents who normally forget is 11%. Remote learning according to DHANARAJAN 2001 & HEEKS 2002 is however, facing a lot of obstacles and challenges in developing countries and drop-out rates are usually much higher than in the traditional classroom-based teaching (EASTMOND 2000; WANG et al., 2020; SELWYN, 2010).

#### 6. CONCLUSIONS

The main objective of this research paper was to identify and analyse awareness, participation and differences in the factors that influence students' participation in the Enugu School on Radio program of FRCN in Enugu state where exposure to ICTs is low and e-learning centres are rare. In this context, this paper informs both research and practice about which factors to give particular attention when designing and/ or researching e-learning in this context. It is considered important because the delivery of education carries great potential for the poor, but it has to be done in awareness of the particular challenges. Three major challenges were identified in this case: internet and access to digital devices, parental support and students' academic confidence and trust in remote/online learning.

#### **Key Findings**

- Senior secondary school students in Enugu are strongly aware of the Enugu School on Radio Program of FRCN (77%, 78%) during the COVID-19 lockdown in the state.
- Only 13.9% of students in public schools and 20.7% of students in private schools participated actively in the program. From all indication, the participation of the senior secondary school students in the program was very low even though private secondary school students are more engaged in remote learning than public pupils, in terms of summiting their assignment to a teacher for evaluation.
- The factors that influence their participation vary. While access to internet/digital devices (34%) was the most troubling challenge for students in public schools, private school students projected the lack of parental support and supervision (39%) as their greatest challenges.
- The lack of confidence in remote/online learning was also an impediment as 15% of public-school students and 14% of private school students said they don't trust distance learning.
- The ability to remember, to tune into the program, affected the participants from both

schools almost at the same level as 12% of public-school students and 11% of private school didn't participate because they normally forget.

#### Recommendations

#### For Future Researchers:

 What are the most effective media to teach senior secondary school students in Enugu during emergencies, crisis, outbreak of diseases and or lockdown?

#### For Parents:

- Provide maximum support for the children during remote learning in terms of monitoring and supervision
- Provide children with devices and resources for their effective participation in remote/ distance learning

### For governmental and non-governmental organizations

- Provide IT education for students, especially for those in public schools
- Provide devices and resources for the effective participation of students during remote/ distance learning

#### For media practitioners

 Carry out sufficient campaign to instil trust and confidence on the students towards remote/online learning

#### References

ADEDAYO, M.S. (2015) Education and politics: Its implication for national transformation in Nigeria. *Journal of public policy and Administration Research.* 5(8), pp. 40-46. AGNEW, T. (2014) Connected or Disconnected? The Alberta Teachers' Association. Available from: https://www.teachers.ab.ca/News%20Room/ata%20news/Volume-48-2013-14/Number-18/Pages/Connected-ordisconnected.aspx [15 August 2021].

AJANI, O. (2009) The Effects of School Feeding Program on primary school Attendance in Rural Areas of Lagos State. *African Journal for the psychological study of social Issues*. 12, 1-2.

AVILES, M. & EASTMAN, J. (2012) Utilizing technology effectively to improve millennials' educational Performance: *Journal of International Education in Business*. 5(2), pp. 96-113.

BARNES, N.G & JACOBSON, S.L. (2012) Fish where the fish are: Higher-education embraces new communication tools to recruit the wired generation. *Journal of Higher Education, Theory& practice*. 12, pp. 108-118.

BURNS, M. (2020) School, interrupted: 4 options for distance education to continue teaching During COVID-19. Available from: https://www.globalpartnership.org/blog/school-interrupted-4-options-distance-education-continue-teaching-during-covid-19 [15 August 2021].

CAUCHEMEZ, S., VAN KERKHOVE, M.D., ARCHER, B.N., CETRON, M., COWLING, B.J., GROVE, P., HUNT, D., KOJOUHAROVA, M., KON, P., UNGCHUSAK, K., OSHITANI, H., PUGLIESE, A., RIZZO, C., SAOUR, G., SUNAGAWA, T., UZICANIN, A., WACHTEL, C., WEISFUSE, I., YU, H., NICOLL, A. (2014) School Closures During the 2009 Influenza Pandemic: National and Local Experiences. BMC Infectious Diseases. 14, pp. 207

DHANARAJAN, G. (2001) Distance Education: promise, performance and potential. *Open Learning*. 16:1, pp 61-68. EASTMOND, D. (2000) Realizing the promise of distance education in low technology countries. *Educational Technology Research and Development*. (48:2), pp 100-111. EDTECHMAGAZINE (2010) *The* 2010 21st-Century

EDTECHMAGAZINE (2010) *The 2010 21st-Century Campus Report.* Available from: https://edtechmagazine.com/sites/default/files/85294-wp-21st-century-campus.pdf [02 August 2021].

EDUCATION CANNOT WAIT (2020) ECW Annual Results Report: Stronger Together in crisis. Available from: https://www.educationcannotwait.org/annual-report/ [30 August 2021].

EMARKETER (2011) Young Children Consuming More Digital Media. Available from:

FRIEDMAN, L.W. & FRIEDMAN, H.H. (2013) Using social media technologies to enhance online Learning. *Journal of Educators online*. 10 (1), pp. 1-21.

GERARDO, C., SANTIAGO, E., CECILE, V., LONE, S., JAMES, T., MARK, A., MILLER, V. & BORJA, A (2011) Characterizing the Epidemiology of the 2009 Influenza A/H1N1 Pandemic in

GERHARD, J., & MAYR, P. (2002) Competing in the E-Learning Environment– Strategies for Universities. Proceedings of the 35th Hawaii International Conference on System Sciences 2002. doi: 10.1109/HICSS.2002.994405. GODWIN, S.J., THROPE, M.S. & RICHARDSON, J.T. (2008) The Impact of computer-mediated Interaction on distance learning. British Journal of Educational Technology. 39(1), pp. 52-70.

GOODE, J. (2007) Empowering and Disempowering the International Ph.D. Students? Constructions of the Dependent and Independent Learner. *British Journal of Sociology Of Education*. 28(5), pp. 589-603.

GOTTSCHALK, F. (2019) *Impacts of technology use on children: Exploring literature on the brain.* Available from: https://www.oecd.org/officialdocuments/publicdispla y d o c u m e n t p d f / ? c o t e = E D U / W K P % 82019%293&docLanguage=En [02 August 2021].

HALADU, A.B. (2008) Adult basic education and the challenges for the realization of the Millennium Development Goals (MDGs). In: MARLIE, B. & RASHID, A (eds.). Education for Millennium Development. Ibadan: Spectrum Books.

HEEKS, R. (2002) Information Systems and Developing Countries: Failure, Success, and Local Improvisations. *The Information Society*. 18(2), pp 101-112.

HOOFT, G. (2018) "New technologies and 21st century children: Recent trends and outcomes. Available from: https://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=EDU/WKP%282018%2915&docLanguage=En [05 August 2021].

HOPKINS, L., BROOKES, F. & GREEN, J. (2013) Books, byte and brains: The implications of new Knowledge for children's early literacy learning. *Australian Journal of Early childhood*. 38/1, pp. 23-28.

HRASTINSKI, S. (2007) *Participating in Synchronous Online Education*. Lund:Lund University.

HRASTINSKI,S., KELLER, C. & CARLSSON, S. A. (2010) Design exemplars for synchronous e-Learning: A design theory approach. *Computers & Education*. 55(2), pp. 652-662. http://www.emarketer.com/Article/Young-Children-Consuming-More-Digital-Media/1008435[30 August 2021].

JACKSON, C., VYNNYCKY, E., HAWKER, J., OLOWOKURE, B. & MANGTANI, P. (2009) School closures and influenza: systematic review of epidemiological studies. *BMJ Open*. 3:e002149. doi:10.1136/bmjopen-2012-002149.

JACKSON, L. A., BIOCCA, F. & HIRAM, F. (2006) Does Home Internet Use Influence the Academic Performance of Low-Income children? *Developmental Psychology*.42(3), pp. 429-35.

JAFFAR. A., AMAN, J., MOHAMMAD, N. & BANO, S. (2019) The Impact of Social Media on Learning Behaviour for Sustainable Education: Evidence of Students from Selected Universities in Pakistan. *Sustainability*. 11(6), p. 1683.

JOHN, D. (2020) Education and the COVID-19 pandemic. *Prospects (Paris)*. 20, pp. 1-6.

JOHNSON, A.J., MOORE, Z.S., EDELSON, P.J., KINNANE, L., DAVIES, M., SHAY, D.K., BALISH, A., MCCARRON, M., BLANTON, L., FINELLI, L., AVERHOFF, F., BRESEE, J., ENGEL, J. & FIORE, A. (2008) Household Responses to School Closure Resulting From Outbreak of Influenza B, North Carolina. Emerging Infectious Diseases. 14(7), pp. 1024–1030.

LEON, F., RICARDO, S., TASHWEKA, M., ANNIK, S. & CATHIE, H. (2006) *Measuring the Effects of Education on Health and Civic Engagement: Proceedings of the Copenhagen Symposium*. Available from: https://www.oecd.org/education/innovation-education/37437718.pdf [05 August 2021].

LEONE, M. (1981) *The impact of education on political development*. Doctoral thesis, Institute of Education, University of London.

LUCAS, M., NELSON, J. & SIMS, D. (2020) Schools' responses to Covid-19 Pupil's engagement in remote learning. Available from: https://www.nfer.ac.uk/schools-responses-to-covid-19-pupil-engagement-in-remote-learning/ [20 August 2021].

MCDOOL, E., POWELL, P., ROBERTS, J. & TAYLOR, K. (2020) Social media use and children's Wellbeing. *Journal of Health Economics*. 69, pp. 1-20.Mexico. *PLOS Medicine*. doi:10.1371/journal.pmed.1000436.

MICHEAL, J.S. (2014) Understanding the Use and Impact of social media features on the Educational Experience of Higher Education students in Blended and Distance learning Environments. Available from: https://surface.syr.edu/etd/102 [20 August 2021].

MORAN, M., SEAMAN, J.& TINTI-KANE, H. (2011). How toady's higher education faculty use social media. Available from: https://files.eric.ed.gov/fulltext/ED535130.pdf [22 August 2021].

MORGAN, K., MOLENDEZ-TORRES, G.J., BOND, A., HAWKINS, J., HEWITT, G., MURPHY, S. & MOORE, G. (2019) Socio-economic inequalities in adolescent summer holiday experiences, and mental wellbeing on return to school: Analysis of the school health research network Health behaviour in school-aged children. Survey in Wales. *International Journal of Environmental Research and Public Health*.16(7), p. 1107.

NAGHMEH, M. A. (2010) Social Media Usage in Academia: Campus Students Perceptions of How Using Social Media Supports Educational Learning. Magister. Available from: http://www.diva-portal.org/smash/record.jsf?pid=diva2%3A351931&dswid=-9870 [22 August 2021].

NGWU, C., ANORUE, L. and EKWE, O. (2015) Patterns of GSM Usage among Nomadic Fulani in North West Nigeria. *International Journal of Media, Security and Development*. 2(1), pp. 199-206.

NINA, S. & RILEY, D. (2020) *How Some Cities 'Flattened the Curve' during the 1918 Flu Pandemic*. Available from: https://www.nationalgeographic.com/history/article/how-cities-flattened-curve-1918-spanish-flupandemic-coronavirus [20 August 2021].

NORD, M. & ROMIG, K. (2006) Hunger in the summer. *Journal of children and poverty.* 12/2, pp. 141-158.

NWANNE, B.U. (2015) Communication and social media use in Nigeria: Order or Ordered Disorder? *International Journal of Media, Security and Development*, 2, pp. 184-189.

O'KEEFFE, G.S. & CLARKE-PEARSON, K. (2011) Clinical Report- The impact of social media on children, Adolescents, and Families. *Pediatrics*. 127(4), pp. 800-4. OLAKANMI, C. (2008) Children and Allied Laws. Panaf Press: Abuja

PREETI, S. (2014) Education and Role of Media in Education system. *International Journal of Scientific Engineering and Research*. 2(3), pp. 174-177.

PRENKSY, M. (2001) Digital natives, digital immigrants. Available from: https://www.marcprensky.com/writing/Prensky%20-%20Digital%20Natives,%20Digital%20Immigrants%20-%20Part1.pdf [22 August 2021].

RASHID, A.K. & HASSAN, Q. (2020) Adoption of LMS in Higher Institution of the Middle East. Berlin: Springer. SELWYN, N. (2010) Looking beyond learning: Notes towards the critical study of educational Technology. *Journal of computer of Assisted Learning*. 26(1), pp. 65-73.

STORY, M. (2009) The third school Nutrition Dietary Assessment Study: Findings and policy Implications for improving the Health of US children, *Journal of the American Dietetic Association*. 109(2 Suppl), pp. S7-13.

SULAYMAN, D. & AKAEZE, P. (2014) Role of business education in promoting entrepreneurship in Nigeria. *International Journal of Academic Research in progressive Education and Development*. 3(4), pp. 72-77.

TESS, P.A. (2013) The role of social media in higher education classes (real and virtual): A literature review. *Computers in Human Behavior*. 29(5), pp. 60-68.

THROPE, M.S. & GODWIN, S. J. (2006) Interaction and E-learning: The Student Experience *Studies in Continuing Education*. 28(3), pp. 203-221.

UCHIDA, M., KANEKO, M., YAMAMOTO, H., HONDA, T. & KAWA, S. (2013) Effects of school closure during influenza A/H1N1 pandemic in 2009 in Japan. *Nihon Eiseigaku Zasshi*. 68(2), pp. 103-17.

UNDIYAUNDEYE, F. (2014). Impact of social media on children, Adolescents and families. *Global Journal of Interdisciplinary social sciences*. 3(2), pp. 1-4.

UNICEF (2020) COVID-19: Are children able to continue learning during school closures? A global analysis of the potential reach of remote learning policies using data from 100 countries. Available from: https://data.unicef.org/resources/remote-learning-reachability-factsheet/ [28 August 2021]. UNITED NATIONS (2015) Envision2030: 17 goals to transform the world persons with disabilities. Available from: https://www.un.org/development/desa/disabilities/envision2030.html [22 August 2021].

UNITED NATIONS (2020) Policy brief: Education during COVID-19 and beyond. Available from:https://www.un.org/development/desa/dspd/wp-content/uploads/sites/22/2020/08/sg\_policy\_brief\_covid-19\_and\_education\_august\_2020.pdf [15 August 2021].

WAGNER E. D.(1994) In Support of a functional Definition of Interaction. *American Journal of Distance Education*. 8(2), 6-29.

WANG, G., ZHANG, Y., JIN, Z., JUI, Z. & FAN, J. (2020) Mitigate the effect of home confinement on Children during the COVID-19 outbreak. *Correspondence*. 395(102228), pp. 945-947.

WORLD BANK (2020) Pivoting to Inclusion: Leveraging Lessons from COVID-19 crisis for learning with disabilities. Available from: https://www.worldbank.org/en/topic/disability/publication/pivoting-to-inclusion-leveraging-lessons-from-the-c-ovid-19-crisis-for-learners-with-disabilities [30 August 2021].