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REVAMPING PRIMARY EDUCATION SECTOR FOR SUSTAINABLE DEVELOPMENT IN DELTA STATE THROUGH ACCESSIBILITY OF DIGITAL TECHNOLOGIES

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ABSTRACT

This study investigated the importance of revamping primary education sector for sustainable development in Delta State through accessibility of digital technologies. Two research questions guided the study. A descriptive survey research design was adopted in the study. Population for the study consisted of fifteen thousand, three hundred and sixteen (15,316) teachers from 1,079 public primary schools within 25 LGAs in Delta State. The sample size for the study comprised 1,532 teachers from 219 public primary schools selected at 10% and 20% respectively using purposive sampling technique. Instrument for data collection was a 30-item researchers' self-developed questionnaire structured on a 4-point rating scale and titled "Revamping Primary Education Sector for Sustainable Development Questionnaire (RPESSDQ)". The instrument was validated by three experts from the Faculty of Education, Delta State University, Abraka. Reliability of the research instrument was established through a pilot-test sampling 35 teachers from 5 public primary schools in Delta State which were not part of the study. Data generated from the pilot-test conducted were analyzed using the Cronbach Alpha method. This yielded coefficient reliability values of 0.88 and 0.83, for each of the two sections respectively giving an overall internal consistency coefficient of 0.86, showcasing that the questionnaire was reliable. Data collected were analyzed using only mean statistics rated at 2.50 and the standard deviation statistics. Findings of the study indicated among others that both the hardware and software digital technologies were not accessible for revamping the primary education sector for sustainable development in Delta State. Based on these findings, recommendations were made and among them included that; Delta State Government with the cooperation of the State Universal Basic Education Board (DSUBEB) and head teachers should provide adequate budgetary allocation for digital resource mobilization, likewise financial support for teachers' procurement and accessibility to personal hardware digital technologies, which is crucial for revamping the primary education sector for sustainable development in Delta State.

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Introduction

The primary education sector is one of the most important sectors in the Nigerian education system. This is so because the primary education sector is the first and foundation of all children academic learning on which other levels of education stands. It is therefore, said that when the foundation is faulty, it affects other future developments. Primary education hence is very crucial in the life of every Nigerian child which is most important for sustainable development in the Nigerian society. Primary education, according to Asodike and Ikpitibo (2014), is the foundation of formal education which prepares children mind for both present and future schooling, likewise, trains them for higher and tougher academic pursuits throughout their lifetime. It provides young learners with the fundamentals of reading, writing, skill acquisition, information and attitudes necessary for proper adjustment into the society. Primary education aims to ensure the development of children, in order to develop their social, cognitive, cultural, emotional and physical skills to the best of their abilities. Primary education improves children's awareness, opens opportunities and reduces inter-generational poverty (Ogungbe, 2022). Through effective primary education, children social skills such as reading and literacy skills, manipulative skill, creative skill, mathematical skill, decision making skill, communication skill, among others, are strongly developed and built for the promotion of sustainable development. Sustainable development however, can be described as development that meets the needs of the present generations without compromising the ability of future generations to meet their own needs (Rabie, 2016). Needham cited in Rabie (2016) goes beyond this definition to say, sustainable development is the ability to meet the needs of the present while contributing to [meeting] the future generations' needs. Sustainable development incorporates all spheres and aspects of development covering social, economic, political, cultural, religious, educational and environmental or ecological developments in the society. Therefore, sustainable development could be defined as a pattern of socio-economic growth in which resources used in the society aims to meet human needs while preserving the environment so that these needs can be met not only in the present, but also for generations to come. The primary education sector is surely important for sustainable development in the country given the fact that education is not only an end in itself. It is a key instrument for bringing about changes in knowledge, values and behaviours and life styles required to achieve sustainability and stability within and among countries (Boyi, 2014).

The primary education sector as further observed by Boyi (2014) plays important role in sustainable development of the society in the following manner: it serves as a process of improving a wide range of opportunities that will enable individual humans and communities to achieve their aspirations and full potential over a sustained period of time while maintaining the resilience of economic, social and environmental systems. Primary education sector increases capital income and employment, promoting human welfare satisfying basic needs; protecting the environment. Considering the path of future generation, achieving equity between rich and poor and participation on a broad basis in development and decision making is of utmost important. Primary education serves as a

systematic procedure for the transfer and transformation of culture through formal and informal training of people in the society. Primary education deals with mental, physical, psychological and social development of the children in a given society. The fact that any form of education and sustainable development shows glaring connectivity probably explained why most scholars like Boyi (2014) emphasized the need for primary education, for the purpose of achieving the desired sustainable development. Primary education provides the consciousness, awareness and enlightenment to children in order to properly pursue their future aspirations and yearnings. It has also been mentioned by Olubadewo cited in Boyi (2014) that, it is only educated population that can command skills necessary for sustainable socio-economic growth and a better quality of life especially in this 21st century. Sustainable national development in this 21st century, may therefore, be seen as the target goal since it is meant for the society and its members; and education, including primary education, however remains the instrument for achieving and attaining the target goal. The role(s) of primary education sector for sustainable development has equally been captured in the goals and objectives of the primary education identified by the Federal Republic of Nigeria (FRN, 2014: 10) in the National Policy on Education (NPE) and they are:

a. to inculcate permanent literacy and numeracy, and ability to communicate effectively;
b. to lay a sound basis for scientific, critical and reflective thinking;
c. to promote patriotism, fairness, understanding and national unity;
d. to instill social, moral norms and values in the child;
e. to develop in the child the ability to adapt to the child's changing environment;
f. to provide opportunities for the child to develop manipulative skills that will enable the child function effectively in the society within the limits of the child's capacity;
g. to give citizenship education as a basis for effective participation in and contribution to the life of the society;
h. to mold the character and develop sound attitude and morals in the child; and
i. to provide the child with basic tools for further educational advancement, including preparation for trades and crafts of the locality.

To successfully, efficiently and effectively achieve the afore mentioned goals and objectives of the primary education sector for sustainable development in the society, this will warrant revamping or total over-hauling of the sector through accessibility of digital technologies. Revamping of digital technologies in primary education sector as perceived within the context of this present study can be referred to as revitalization, rekindling and improvement of the sector through the use of modern electronic or digitalized technologies. Accessibility as viewed in the present study focuses more on ease of access and use of technologies in the primary education sector. While Taylor and Robinson (2023) viewed accessibility as the extent to which individuals can efficiently and effectively locate, access, and use resources and services, considering various barriers such as physical, technological, and cognitive limitations. It is fundamental to creating equitable and inclusive environments. It ensures that individuals can perceive, understand, navigate, and interact with digital and physical spaces independently and with dignity (Brown & Smith, 2022). The Cambridge University Press (2023) described accessibility as the quality of being able to be reached or entered, or the quality of being easy to obtain or use. Accessibility of digital technologies as perceived in this study simply means that all people can

perceive, understand, navigate, and interact with electronic information and be active, contributing members of the digital world. Besides, technology can be seen as the entities, both material and immaterial, created by the application of mental and physical effort in order to achieve some value. It refers to the application of scientific knowledge for practical purposes, especially in industry (Arthur, 2009). Digital technologies however, can be referred to as those hardware and software electronic tools, systems, devices, and resources that generate, store, or process data. They include computers, the internet, multimedia applications, and other software and hardware used in various fields to enhance productivity and communication (Rouse, 2023). Smith (2022) noted that digital technologies encompass a wide range of tools and systems that enable users to communicate, create, disseminate, and manage information in a digital format. Examples of these digital technologies include hardware and software technologies such as computers, laptops, palmtops, tablets, artificial intelligence, cloud computing, desktop computers, smart phones, animations, gamification, Virtual Reality (VR), Augmented Reality (AR), interactive whiteboards, Blockchain, Learning Management Systems (LMS) such as Moodle and Blackboard, 3D printers, Internet of Things (IoT), robotics**,** biometrics, e-books and e-reader**s** like Kindle or tablets (Aina & Adedo, 2023; Johnson, 2023; Martinez, 2023; Nguyen, 2023; Nwosu & Njoku, 2023; Obi & Okafor, 2022; Ryan, 2023). However, the present study sought to find out the accessibility of these hardware and software digital technologies in the primary education sector. Hardware technologies refer to the physical components of a computer system, such as the central processing unit, memory, and input/output devices, which support the operations and functionalities of the computer (TechTerms, 2023). Hardware technologies encompass the tangible elements of computing and digital devices, including their mechanical, magnetic, electronic, and electrical parts (Rouse, 2023). Software technologies are set of instructions, data, or programs used to operate computers and execute specific tasks, encompassing system software, application software, and middleware (TechTerms, 2023). Software technologies include programs and other operating information used by a computer, covering various types like application software, system software, and programming software (Rouse, 2023). Some of the advantages of these examples of hardware and software digital technologies previous highlighted include that they create opportunities for innovative practices on the use of blended learning which combines traditional face-to-face instruction with online learning. The enable pupils to access course materials online while participating in interactive sessions in the classroom, enhancing flexibility and engagement (Garrison & Vaughan, 2022).

The use of digital technologies encourages flipped classroom innovative practices where learners watch video lessons or read materials at home and engage in interactive activities, discussions, and problem-solving exercises in class. This model maximizes classroom time for active learning (Bishop & Verleger, 2021). Digital technologies allow gamified learning platforms which is a game design element in educational contexts to boost student engagement and motivation. Examples include earning points, badges, and leaderboards for completing assignments and participating in class activities (Deterding, Dixon, Khaled & Nacke, 2021). They equally serve as collaborative online tools which encourage platforms like Google Workspace and Microsoft Teams that facilitates real-time collaboration on projects and assignments. These tools enhance communication and teamwork skills among learners (Voogt & Knezek, 2022). Digital technologies provide e-portfolios innovative

practices which aid digital collections of learners' work that showcases their learning progress and achievements. E-portfolios promote reflection and self-assessment and provide a platform for students to present their skills to potential employers (Barrett, 2021). Digital technologies provide digital simulations and virtual labs which allow learners to conduct experiments and explore complex concepts in a virtual environment. These tools provide hands-on learning experiences without the constraints of physical labs (de Jong, Linn & Zacharia, 2022). Digital technologies create opportunities for use of interactive digital textbooks which include multimedia elements such as videos, animations, and interactive quizzes. These textbooks provide a more engaging and immersive learning experience compared to traditional print books (Johnson, Adams, Estrada & Freeman, 2021). All these digital technologies support effective teaching and learning in the classroom. The also enhance teachers job performance, commitment and productivity in school. That is to say that when teachers use the digital technologies in the classroom, their performance seem to be very effective leading to very high commitment and productivity. Teachers' job commitment is always visible from the pupils' academic performances. Based on this fact, teachers need to support their pedagogical methodologies using various hardware and software digital technologies. A look at the poor situation of many primary schools in Delta State, warrants the need for accessibility of digital technologies in these schools. Since, the world all-over has gone digital also experiencing a high wave of changes through the use of technologies, there is need to expose children and learners to the use of the digital technologies at the early stages of life, so that, they easily fit into technological advancement and changes not only in Delta State or Nigeria but globally. Rather, various poor scenarios/situations in the primary schools which have been indicated in previous empirical studies seem to have showcased that adequate accessibility to digital technologies necessary for revamping primary education sector is yet to be accomplished. Empirical studies of Kennedy and Cronjé (2023) have indicated that ICT have not been effectively accessed by the secondary school teachers. Also, Jude and Dankaro (2012) study indicated that ICT resources were not available and for that reason, teacher educators could not access them for instructional development purposes.

In a study, Oduro and Yalley (2022) reported that computers were the most accessible ICT equipment in the school but were without internet accessibility and connectivity for administrative work. All these previous empirical studies including those of Abass and Ayo (2013), Ajeigbe, Ogunsakin and Shogbesan (2015), Dada (2021), Ifulunni, Ibiam, Ugwu and Okoroma (2015), Odhiambo (2013), and Sunusi and Ezeodo (2016) with their findings, mix and shortcomings, mark their similarities and differences with the present study as well. Their similarities are shared with the present study in the aspect of improving primary education sector through the use of digital technologies; while their differences with the present are shown in the aspects of their contents, locations and methodology; therefore, necessitating the present study. Hence, the ugly state and poor situation of many primary schools in the country and Delta State inclusive which continues to hamper achievement of quality education in the sector for flourishing sustainable development in the society, have motivated the researchers in the present study to investigate the essence of revamping the primary education sector for sustainable development in Delta State through accessibility of digital technologies.

Statement of the Problem

The role of primary education sector in sustainable development in the society cannot be overemphasized. Primary education seems to inculcate into children requisite skills that will enable them to function effectively in the society. Skills that children acquire at the primary education level will always enable them to successfully pass through other stages of learning. However, the poor and devastating situations of many public primary schools especially in Delta State seems to be worrisome and have created doubts for most researchers and education stakeholders on the effectiveness of this level of education system to continue to serve as an important instrument for sustainable development. This situation seems to be evidence in the magnitude of deplorable infrastructure and educational resources lacking in the primary schools hindering effective teaching and learning delivery, thus, making the attainment of quality education at this level of education, almost impossible. The deplorable state of primary schools in Delta State coupled with the limited educational resources have created a gap which needs to be filled in this present study, hence, the need for revamping the primary education sector for sustainable development in Delta State through accessibility of digital technologies; which is equally the problem of this study.

Purpose of the Study

The purpose of this study was to determine the importance of revamping the primary education sector for sustainable development in Delta State through accessibility of digital technologies. The specific aim of this study was to determine:

1. Accessibility of hardware digital technologies for revamping the primary education sector for sustainable development in Delta State.
2. Accessibility of software digital technologies for revamping the primary education sector for sustainable development in Delta State.

Research Questions

The following research questions guided the study;

1. How accessible are the hardware digital technologies for revamping the primary education sector for sustainable development in Delta State?
2. How accessible are the software digital technologies for revamping the primary education sector for sustainable development in Delta State?

Research Method

A descriptive survey research design was adopted in the study. This design enabled the researchers to carry out a field investigation by getting the opinions from a sample of teachers from their existing large population using a questionnaire and information gathered were thereafter analyzed using a statistical tool to draw generalization and conclusion based on the findings of the study. Population for the study consisted of fifteen thousand, three hundred and sixteen (15,316) teachers from 1,079 public primary schools within 25 LGAs in Delta State. Justification for choosing only teachers as the population of the study was because they were in better position to reveal the true position of things concerning the accessibility of the hardware and software digital technologies in the primary schools in Delta State. The sample size for the study comprised 1,532 teachers from 219 public primary schools selected at 10% and 20% respectively using purposive sampling technique. The essence of selecting a sample of teachers was to enable the researchers to have a controllable size and number of teachers who were having a large population and geographically spread at

different locations, in the LGAs in Delta State. In view of the difficulty in gathering information from all the teachers in the primary education sector, it then, became necessary to draw sample for the study. Instrument for data collection was a 30-item researchers' self-developed questionnaire structured on a 4-point rating scale and titled "Revamping Primary Education Sector for Sustainable Development Questionnaire (RPESSDQ)". The questionnaire was organized into 2 clusters and structured on a 4-point scale of Highly Accessible (HA) – 4 points, Accessible (A) – 3 points, Less Accessible (LA) – 2 points and Not Accessible (NA) – 1 point. Construction of the questionnaire was based on the numerous literatures reviewed, purpose of the study and research questions. The instrument was validated by three experts from the Faculty of Education, Delta State University, Abraka. These experts determined the face and content validity of the questionnaire in terms of the sentence construction and language clarity, in which corrections were made on some of the items on the questionnaire and was effected before the final print out. Reliability of the research instrument was established through a pilot-test sampling 35 teachers from 5 public primary schools in Delta State which were not part of the study. Data generated from the pilot-test conducted were analyzed using the Cronbach Alpha method. This yielded coefficient reliability values of 0.88 and 0.83, for each of the two sections respectively giving an overall internal consistency coefficient of 0.86, showcasing that the questionnaire was reliable. Distribution of all the copies of the questionnaire was done through a personal, hand delivery and direct contact with the respondents employing the services of 5 research assistants, who were instructed on how to communicate with the teachers in order to retrieve the necessary information from them. An on-the-spot method was also used to collect data immediately from the respondents as a way of retrieving all the 1,532 copies of the questionnaire. However, a total of 1,336 copies of the questionnaire were recovered from the respondents which were at an 87% rate of return. It also took both the researchers and the research assistants a period of 10 working days to gather the information from the respondents. Data gathered and collated were analyzed using only mean statistics rated at 2.50 and the standard deviation statistics. The decision rule was that any mean score which rated 2.50 and above was considered as accessible (A), meanwhile, mean score of 2.49 and below was termed not accessible (NA).

Presentation of Results

Research Question 1: How accessible are the hardware digital technologies for revamping the primary education sector for sustainable development in Delta State?

Table 1: Mean Scores Ratings and SD of Teachers on the Accessibility of Hardware Digital Technologies for Revamping the Primary Education Sector for Sustainable Development in Delta State
N = 1,336 Teachers

S/N	**Please identify how accessible is the under listed hardware digital technologies are in your school.** Accessibility of:	HA	A	LA	NA	X	SD	Decision
1.	personal laptops	230	208	510	388	2.21	1.04	Not Accessible
2.	desktop computers	195	212	417	512	2.07	1.06	Not Accessible
3.	well-furbished modern computer lab with Local Area Network (LAN) and connectivity	211	178	551	396	2.15	1.02	Not Accessible
4.	Smartphones	404	529	215	188	2.86	1.00	Accessible

AJEMATES
African Journal of Educational Management, Teaching and Entrepreneurship Studies
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5.	tablets including ipads and ipods	163	250	401	522	2.04	1.03	Not Accessible
6.	wearable devices (e.g., smartwatches)	101	222	494	519	1.93	0.92	Not Accessible
7.	gaming consoles	154	199	570	413	2.07	0.96	Not Accessible
8.	3D printers including scanners	108	137	589	502	1.89	0.89	Not Accessible
9.	digital cameras	144	251	450	491	2.04	0.99	Not Accessible
10.	virtual reality headsets	111	177	489	559	1.88	0.93	Not Accessible
11.	interactive whiteboards	103	161	578	494	1.90	0.89	Not Accessible
12.	Digital projectors (e.g. overhead projectors, slides including film strip)	212	218	439	467	2.13	1.06	Not Accessible
13.	storage devices such flash drives, external hard disc, CD-ROM	164	324	433	415	2.18	1.01	Not Accessible
14.	Multimedia (e.g. smart television, DVD players and other video devices, tape recorders, cassette player)	176	236	425	499	2.07	1.04	Not Accessible
	Overall Mean Score & SD =					**2.10**	**1.02**	Not Accessible

Analysis of data from Table 1 shows that only item 4 was rated above the acceptable mean score of 2.50 by the primary school teachers to show that they agreed with this statement. All the other items from 1 to 3, and 5 to 14 were rated below the acceptable mean score of 2.50 by the teachers to show that they disagreed with these statements. The grand mean of 2.10 and standard deviation (SD) of 1.02 indicates closeness in the responses of the teachers showing poor accessibility of many of the hard digital technologies; except for only the teachers' smart phones which was accessible. This result implies that the hardware digital technologies were not accessible for revamping the primary education sector for sustainable development in Delta State.

Research Question 2: How accessible are the software digital technologies for revamping the primary education sector for sustainable development in Delta State?

Table 2: Mean Scores Ratings and SD of Teachers on the Accessibility of Software Digital Technologies for Revamping the Primary Education Sector for Sustainable Development in Delta State
N = 1,336 Teachers

S/N	**Please identify how accessible is the under listed software digital technologies are in your school.** Accessibility of:	HA	A	LA	NA	X	SD	Decision
15.	Internet with web browsers (e.g., Google Chrome, Mozilla Firefox)	201	181	501	453	2.10	1.03	Not Accessible
16.	productivity suites (e.g., Microsoft Office, Google Workspace)	174	232	515	415	2.12	0.99	Not Accessible
17.	graphic designs software (e.g., Adobe Photoshop, CorelDraw suites)	200	163	529	444	2.09	1.02	Not Accessible
18.	Learning Management Systems (LMS) such as Moodle and Blackboard	117	124	596	499	1.89	0.90	Not Accessible
19.	database management systems (e.g., MySQL, Oracle Database)	89	128	585	534	1.83	0.86	Not Accessible
20.	cloud computing services (e.g., Amazon Web Services, Microsoft Azure)	111	192	543	490	1.94	0.92	Not Accessible
21.	artificial intelligence	125	114	590	507	1.89	0.91	Not Accessible
22.	gamification (e.g. Duolingo - language learning, Kahoot - interactive quizzes)	113	155	571	497	1.91	0.90	Not Accessible
23.	animations (e.g., animated educational videos and tutorials)	98	207	504	527	1.91	0.91	Not Accessible
24.	e-books and e-readers like kindle or tablets	166	220	530	420	2.10	0.98	Not Accessible
25.	Augmented Reality (AR)	110	119	598	509	1.87	0.88	Not Accessible
26.	Virtual Reality (VR)	106	133	570	527	1.86	0.89	Not Accessible
27.	Internet of Things (IoT)	194	108	548	486	2.01	1.01	Not Accessible
28.	content management systems (e.g., WordPress, Joomla)	161	261	474	440	2.11	1.00	Not Accessible
29.	social media tools (e.g., WhatsApp, YouTube, Twitter, Zoom, Skype, Dropbox)	205	288	489	354	2.26	1.01	Not Accessible
30.	Google apps (e.g. Google classroom, Google meet, hangouts, Google form, calendar)	212	237	486	401	2.19	1.04	Not Accessible
	Overall Mean Score & SD =					**2.01**	**0.96**	Not Accessible

Analysis of data from Table 2 shows that none of the items from 15 to 30 were rated above the acceptable mean score of 2.50 by the primary school teachers to show that they agreed with these statements. All the items were rated below the acceptable mean score of 2.50 by the teachers to show that they disagreed with these statements. The grand mean of 2.01 and standard deviation (SD) of 0.96 indicates closeness in the responses of the teachers showing their poor accessibility of the software digital technologies. This result implies that the software digital technologies were not accessible for revamping the primary education sector for sustainable development in Delta State.

Discussion of Findings

Findings of the study generally indicated that both the hardware and software digital technologies were not accessible for revamping the primary education sector for sustainable development in Delta State. This finding is similar to that of Ifulunni, Ibiam, Ugwu and Okoroma (2015) who investigated the extent of availability of information and communication technology (ICT) in teaching public and private primary school's pupils in Ndokwa East and West Local Government Education Authorities (LGEAs) of Delta State. Ifulunni, Ibiam, Ugwu and Okoroma (2015) discovered that ICT facilities were not available for teaching primary schools pupils in the two LGEAs with all the existence of a national policy on ICT. The finding of this study supports the finding of Abass and Ayo (2013) who discovered that computer package is not being used by the majority of the teachers, even though a very large number of them support the introduction of information technology (IT) into the school curriculum.

The finding of this study revealed that there was poor and lack of accessibility of many of these the hard digital technologies in the primary education sector in Delta State. The teachers had accessibility to only the smart phones. This means that a lot of teachers had access to their personal smart phones which could be used in the classroom to promote teaching and learning in the primary schools. The finding further implies that the other hardware digital technologies such as: personal laptops, desktop computers, well-furbished modern computer lab with Local Area Network (LAN) and connectivity, tablets including ipads and ipods, wearable devices (e.g., Smartwatches), gaming consoles, 3D printers and scanners, digital cameras, virtual reality headsets, interactive whiteboards, digital projectors (e.g. overhead projectors, slides including film strip), storage devices such flash drives, external hard disc and CD-ROM, and multimedia (e.g. smart television, DVD players and other video devices, tape recorders and cassette player); were all not accessible for revamping the primary education sector for sustainable development in Delta State. This finding agrees and concurs with the findings of Sunusi and Ezeodo (2016) study which revealed that digital technologies such as modem, digital video camera, digital photo printer, digital camera, IPods, smart watch, and card reader were found not to be available for teaching primary school pupils in the study area. The digital technologies that were found to be available were discovered to be rarely used for teaching. This finding also tally and corresponds with the finding of Kennedy and Cronjé (2023) study which indicated that ICT have not been effectively accessed by the secondary school teachers. However, this finding is in contrary to the findings of Odhiambo (2013) who found that computer was almost always used by teachers; this was followed by the use of overhead projector. The least used hardware by teachers was the internet. The finding of this study

is also contrary to the findings made by Ajeigbe, Ogunsakin and Shogbesan (2015) which revealed a high level usage of ICT facilities in secondary schools among computer studies teachers.

It was equally found out in this study that there was poor and lack of accessibility of the software digital technologies in the primary education sector in Delta State. This result further implies that those software digital technologies such as: the Internet with web browsers (e.g., Google Chrome, Mozilla Firefox), productivity suites (e.g., Microsoft Office, Google Workspace), graphic designs software (e.g., Adobe Photoshop, CorelDraw suites), Learning Management Systems (LMS) such as Moodle and Blackboard, database management systems (e.g., MySQL, Oracle Database), cloud computing services (e.g., Amazon Web Services, Microsoft Azure), artificial intelligence, gamification (e.g. Duolingo - language learning, Kahoot - interactive quizzes), animations (e.g., animated educational videos and tutorials), e-books and e-readers like kindle or tablets, Augmented Reality (AR), Virtual Reality (VR), Internet of Things (IoT), content management systems (e.g., WordPress, Joomla), social media tools (e.g., WhatsApp, YouTube, Twitter, Zoom, Skype, Dropbox), and Google apps (e.g. Google classroom, Google meet, hangouts, Google form, calendar); were not accessible for revamping the primary education sector for sustainable development in Delta State. This finding corroborates and is equally in support with the findings of Dada (2021) study which confirmed that children from poorer backgrounds did not always have access to internet connectivity and digital online resources needed for learning during the pandemic. This inequity has the adverse effect of further intensifying the existing disparities in learning outcomes along socioeconomic lines and the urban-rural divide. Also, most students were from disadvantaged backgrounds and did not have access to a computer and the Internet outside school, thus mostly affected by schools' closure. The present study finding falls in line with Jude and Dankaro (2012) study which found out that ICT resources were not available and for that reason, teacher educators could not access them for instructional development purposes. The finding of this study supports and flows with Oduro and Yalley (2022) study which established that computers were the most accessible ICT equipment in the school but were without internet accessibility and connectivity for administrative work in the schools.

Conclusion

Effective accessibility of various digital technologies is of great significance and relevance towards transformation of the primary education sector for sustainable development in Delta State. But the study concludes and submits that both the hardware and software digital technologies were not accessible for revamping the primary education sector for sustainable development in Delta State. This poor situation has made it difficult for qualitative learning and education which could revamp the primary education sector for sustainable development in Delta State to triumph, therefore, requesting for absolute redress. Upon this premise, recommendations have been made.

Recommendations

Based on the findings of this study, the following recommendations were proffered:

1. Delta State Government with the cooperation of the State Universal Basic Education Board (DSUBEB) and head teachers should provide adequate budgetary allocation for digital resource mobilization, likewise financial support for teachers' procurement and accessibility to personal hardware digital technologies, which is crucial for revamping

the primary education sector for sustainable development in Delta State. Government can also solicit financial support from the private sector to provide adequate funds for accessibility of both the hardware and software digital technologies which is necessary for revamping the primary education sector for sustainable development in Delta State

2. The DSUBEB with financial support and encouragements from the private sector should constantly organize digital technology capacity building programmes that will enhance teachers' accessibility to software digital technologies for revamping the primary education sector for sustainable development in Delta State.

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