

## **Challenges Preventing Public Primary School Students from Using Information Communication Technology for Learning in Nigeria and the Way Forward**

by

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### **Abstract**

Public primary school students are facing many problems in their respective educational institutions. The problem of ICT usage and integration into the learning programmes of the students is one of the major problems facing primary school education in Nigeria. This paper discussed the challenges preventing public primary school students from using information communication and technology for learning in their respective schools. This paper depends on the secondary schools sourced from print and online publications. The paper identified inadequate funding of ICT programs, inadequate ICT facilities, poor internet services, unstable power supply, high cost of ICT facilities, shortage of computer teachers, poor implementation of ICT policies, and poor ICT literacy of students, corruption, and insecurity. To solve these challenges, this paper suggested: that the government should increase the funding of ICT programs in all the public primary schools in the country. This will make funds available for school administrators to purchase adequate ICT facilities for students' use. The government should provide adequate ICT facilities in all public primary schools. This will provide opportunities for students to use ICT for learning in their schools. The government should ensure that internet services providers are providing quality internet services across the country and that more rural and communities are covered with internet services.

**Keywords:** Challenges, ICT, Primary school, Education, Students, etc.

### **Introduction:**

Primary Education is the education given to children aged 6-12 years. The objectives of primary education are to: Inculcate permanent literacy, numeracy, and the ability to communicate effectively; lay a sound basis for scientific, critical, and reflective thinking; promote patriotism, fairness, understanding, and national unity; instill social, moral norms and values in the child; develop in the child the ability to adapt to the changing environment; and provide opportunities for the child to develop life manipulative skills that will enable the child to function effectively in the society within the limits of the child's capability (NPE, 2013).

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The Nigerian public primary school is home to the students, teachers, and non-teaching staff. The students are the most important factors in educational institutions. Public primary school students are facing many challenges which are hindering their academic program. One problem facing public primary schools students in Nigeria is the problem of integrating and using ICT for learning.

Students in the Nigerian public primary schools are not using information communication and technology effectively and constantly because of challenges. The aim of this paper is to discuss the challenges preventing public primary school students from using information communication and technology for learning in their respective schools.

### **Concept of Information Communication Technology:**

There are different definitions of information communication and technology by different authors. For Obanya (2002), ICT is a broad term that has to do with the harnessing of process, the methods, and the product of electronic communication-related technologies and other related resources in today's knowledge-driven society, for enhancing the productivity, the spread, and efficiency of set program activities geared towards the achievement of clearly defined goals while United Nation Educational Scientific and Cultural Organization (UNESCO, 2005) defined ICT as the combination of all the computers, telecommunication, and media technologies. They are also electronic technologies used for accessing, processing, gathering, manipulating, and presenting or communicating information in the education system. Edozie et al. (2010) noted that Information and Communication Technologies (ICTs) empowerment enhances the abilities of people to use ICT to improve their life skills and strengthen their capabilities. Such empowerment could be facilitated awareness and motivation for ICTs.

World Bank (2007) opined that Information Communication Technology (ICT) is the use of hardware, software, networks, and media for the collection, storage, processing, transmission, and presentation of information (voice, data, text, images, etc.) as well as related services. The United Nation Education Scientific and Cultural Organizations (UNESCO, 2004) observed that ICT has turned from being a technology of communication and information alone but to a curriculum creation and delivery system for educators and learners. Deebom & Zite (2016) view Information and Communication Technology (ICT) as electronic media, devices, and applications used in the classroom to aid effective teaching and learning processes. All such materials, media, and devices provided by ICT which appeal to all the senses and feelings and learning constitute teaching and learning materials. The materials help teachers communicate effectively to the students so that learning is facilitated.

The informational communication technology is applied to all the human resource experts in the educational institutions such as students, teachers, non-teaching staff, and other service providers in the educational institution. Information and Communication Technologies is playing three major functions. ICT is applicable for student administration, staff administration, and school administration. Students function include: ICT is used for students' admissions; computers use for student registration/enrolment; plan time table/class schedule for students; computers use for student attendance in classes; ICT is used to communicate student academic details to their parents/guardians through e-media; Usage of e-media for notifications regarding hostel accommodation; and use of e-media for notifications regarding transportation.

For the students, ICT helps them carry out research, check their results, submit their assignments, save their notes and carry out some simple calculations. The students also use ICT to write tests, examinations and learn online.

Hamrokulova (2021) observed that in elementary school, the child's leading activity changes from a game to an educational one. Using your computer's gaming capabilities with didactics allows you to make the process smoother. At the same time, all the obligatory educational material is translated into bright, engaging, with a reasonable amount of playful approach, a multimedia form with extensive use of graphics, animation, including interactive, sound effects, and voice guidance, including video clips. Younger schoolchildren are distinguished by the sharpness and freshness of perception, which is explained by age-related features of higher nervous activity. With lively curiosity, children perceive the environment and everything new. The perception of primary school students is characterized by a pronounced emotionality. In primary school age, involuntary attention is developed, which ensures: a) Concentration of the effectiveness of the lesson; b) Organization of individual survey mode; c) Boost of student interest in the lesson. According to Okafor (2010), "ICT resources provide opportunities for learning and create a condition that can enhance learning." He further opined that the traditional instructional approaches (Non-ICT materials) cannot achieve the goals of teaching at this period of information explosion and globalization. Hence, the need to incorporate Information and Communication Technology (ICT) as an instruction material required in teaching and learning of Christian Religious Knowledge in our secondary schools.

### **Challenges Preventing Public Primary school Students from using ICT from learning:**

There are many challenges preventing Nigerian public primary schools students from using ICT to learn in their various schools. Some of these challenges include inadequate funding of ICT program, inadequate ICT facilities, poor internet services, unstable power supply, high cost of ICT facilities, shortage of computer teachers, poor implementation of ICT policies, poor ICT literacy of students, corruption, and insecurity.

- i. **Inadequate Funding of ICT programme:** Inadequate funding of ICT programs in the Nigerian public primary schools is one of the major challenges to effective utilization and integration of ICT into the student learning programs. The allocation for the administration and management of public primary schools in Nigeria is inadequate. The education of Nigeria has not been encouraging by the various three tiers of government. The annual allocation for the administration of education is below the recommendation of UNESCO 26% for developing countries like Nigeria. Therefore, Nigeria is below the UNESCO recommendation education allocation for the past six years. Punch (2021) reported that in 2016, the first budget prepared by Buhari's regime after taking over from former President Goodluck Jonathan in May 2015, the Federal Government allocated N369.6bn which amounted to 6.7 percent of the national budget of N6.06tn to education, while in 2017, N550.5bn; 7.38 percent of the N7.29tn budget was allocated to the sector. In 2018, N605.8bn, out of N9.12tn budget, representing 7.04 percent was allocated to education; in 2019, it was N 620.5bn, representing 7.05 percent of the N 8.92tn budget. In 2020, N671.07bn of N10.33tn which amounted to 6.7 percent was allocated to the sector; while in 2021, the sector got N742.5bn of the N13.6tn budget, representing 5.6 percent. There are many reasons for the poor funding of education in Nigeria and these reasons include the insecurity problem, fall in revenue generation, lack of political will, and corruption. The poor funding of public primary schools is responsible for poor usage of ICT by students for learning in their respective schools. Gbadamosi (2006) observes that inadequate funding is a major challenge that

- has negatively affected many areas of education in Nigeria. Areas it has affected include funding of ICT projects, training, and retraining of teachers, provision of technological infrastructure, development and maintenance of software packages and electricity.
- ii. **Inadequate ICT Facilities:** Inadequate ICT facilities in majorities of the public primary schools also account for the poor usage of ICT by public primary schools students in Nigeria. ICT facilities like Computer set, Laptops, Scanners, Printers, Fax machine, GSM Phone, Memory chips, Hard disks, Flash drives, Internet connectivity, DVD, Compact disks, Cables (power and data), Word processing packages, Database packages, spreadsheet packages, presentation packages, BASIC program Corel Draw are not in many public primary schools across the country. Many public primary schools in the country do not have adequate ICT facilities in their computer laboratories to support the student learning program and this is affecting the students. Attah (2021) disclosed that 60 percent of Nigerians do not have access to smartphones or digital devices. An empirical research study (Sabina, 2012) which investigated the challenges in the application of e-learning in secondary schools in Onitsha North LGA, Anambra State, Nigeria, among two hundred and twenty-five (225) teachers in public secondary schools findings revealed an acute shortage of e-learning materials such as on-line/internet-connected computers, e-mail facilities, multimedia television, multimedia computer, and digital library. It was also revealed that the few available ones, such as off-line/ordinary computers, scanners, printers, and ready-made courseware are not utilized because the teachers lack the knowledge and skills of computer application.
  - iii. **Poor Internet Services:** Another problem hindering effective usage of ICT facilities by the Nigerian public primary school students for learning in their schools is the problem of poor internet services. Many public primary schools are in rural areas where there are no internet facilities and many public primary schools cannot afford to provide internet services for the students due to high costs and charges. Internet services are still very expensive in the country. To access the services in the schools by school administrators is on the high side in terms of cost implication. Attah (2021) expressed regret that access to technology has remained a major challenge facing Nigeria, noting that Internet penetration stands at 42.06 percent in Nigeria where most of the population lives in rural areas.
  - iv. **Unstable Power Supply:** Many cities and communities today in Nigeria do not have access to a stable power supply. This problem is also affecting educational institutions, especially public primary schools across the country. The problem of unstable power supply is hindering the students from integrating ICT into their learning program. Adomi and Kpangan's (2010) findings revealed the factors associated with a low rate of ICT adoption and application in Nigerian Secondary schools as perceived by 176 teachers in two states of Nigeria among 9 schools in Edo State with 84 respondents and 6 schools in Delta State with 92 respondents. Of the 176 teachers, 97 were male and 77 were female. According to the findings, the low rate of ICT adoption and application in Nigeria secondary schools is because of several factors which include limited/poor information infrastructure, lack of/inadequate ICT facilities in schools, frequent electricity interruption, poor ICT policy/project implementation strategy, Inadequate ICT in the schools, High cost of ICT facilities/components, limited school budget, lack of/limited ICT skills among teachers and administrators, inadequate educational

- software, poor management on the parts of school administrators and government, lack of maintenance culture and lack of interest in ICT application/use by the students.
- v. **High Cost of ICT Facilities:** The high cost of ICT facilities in Nigeria is another reason many public primary school students are not using ICT to support their learning programs. The ICT facilities are very expensive to the problem of unstable Dollar in the market. Many school administrators and parents cannot afford to buy ICT facilities for their schools and children. According to Olusola (2021), the high cost of digital devices and access to the internet creates another barrier for vulnerable children. Farrel (2007) argues that the high cost for acquisition and maintenance of ICT infrastructure is a challenge that has continued to hamper the adoption and implementation of ICT in schools. Idowu and Esere (2013) observed that the cost of equipment in a country like Nigeria with a battered economy and seriously devalued currency is enormous.
  - vi. **Shortage of Computer Teachers:** The shortage of professional computer teachers is another problem hindering the effective use of ICT by students for learning. Attah (2021) lamented that about “90 percent of our primary schools do not have computer teachers. Therefore, the government needs to redefine our educational system. We cannot depend on an analogue age. As the world is changing, we need to change too,” she said.
  - vii. **Poor Implementation of ICT Policies:** In order to ensure full integration and usability of ICT in Nigerian public primary schools, the government designed ICT policies and programs for all educational institutions. This policy stated that government shall provide ICT infrastructural facilities in all educational institutions. The poor implementation of these ICT policies in the public primary schools across the country is another factor responsible for poor usage of ICT for learning by the Nigerian public primary schools students.
  - viii. **Poor ICT Literacy of Students:** Poor ICT literacy among Nigerian public primary school students is another challenge to the effective use of ICT for learning in their schools. Many students in public primary schools are not computer literate and this is affecting the rate at which they are using ICT for learning. Attah (2021) blamed the limited access of children and girls to the Internet on what she described as entrenched social norms and prevailing socio-economic challenges. “Children are not equipped on how to handle technology because their parents are equally disadvantaged. In the course of my projects in Borno State last year, I discovered that there is nobody to guide them on how to use it. Over 90% by a conservative estimate of the Nigerian secondary school students cannot use computers (Adako & Aturamu, 2006). The reason for this is not farfetched as the teachers teaching these students are not skilled in computer education and application. Newhouse (2002, p. 45) states that teachers need not only be computer literate but also need to develop skills in integrating computer use into their teaching/learning programs.
  - ix. **Corruption:** The high rate of corruption in the administration of public schools in Nigeria is another big problem responsible for poor utilization of ICT by students by learning in their schools. Funds released for such capital programs are sometimes diverted into private pockets and mismanaged. Some ICT facilities installed in school are sometimes removed by the various school heads and converted to family use at their houses. According to Ogunode, & Adah (2020), institutional corruption is another problem preventing the full implementation of educational policies in Nigeria. Funds

- allocated for implementing educational policies and programs are been diverted by some of the officials in the ministries of education into private pocket.
- x. **Insecurity:** The high rate of insecurity in the Country is another fundamental problem hindering the public primary school students from using ICT facilities for learning in their schools. Due to insecurity and attacks by insurgents and Boko Haram members, many public primary schools are closed down for months and years, especially in the northern part of Nigeria. Ogunode (2020) observed the insecurity problem has affected their academic calendar, learning program and even led to the destruction of infrastructural facilities in many public schools. Insecurity is one of the major problems facing the administration of primary schools in Nigeria. Effective administration of basic education in Nigeria is frustrated by the insecurity challenges facing the country, especially the Northern part of the country. Many Basic schools have been closed down. Educational officers cannot travel to areas where they are supposed to travel to for administrative functions because of insecurity challenges. One of the most insecure challenges facing the country is the Boko Haram group. The militant group, Boko Haram, has carried out violent attacks in the northeastern parts of Nigeria. Thousands of Nigerians have been killed, and many more have been forced to flee their homes. Schools have been the primary target of the attacks. Since 2011, Boko Haram, whose name means ‘Western Education is Forbidden, has expanded its attacks to the direct target of schools. It has resulted in the killing and abduction of hundreds of teachers and students and the destruction of school buildings, teaching materials, and ICT facilities. The destruction of these ICT facilities is slowing down the rate at which public primary schools in Northern Nigeria are using ICT for their learning.

### Way Forward:

To address these problems, the following were suggested:

- i. The government should increase the funding of the ICT programs in all the public primary schools in the country. This will make funds available for school administrators to purchase adequate ICT facilities for students’ use.
- ii. The government should provide adequate ICT facilities in all public primary schools. This will provide opportunities for students to use ICT for learning in their schools.
- iii. The government should ensure that internet services providers are providing quality internet services across the country and that more rural and communities are covered with internet services
- iv. The government should ensure that the power supply is stable and available to all educational institutions, especially the public primary schools across the country. This will allow students to use ICT for learning
- v. The government should subsidize the high cost of ICT facilities for the students and educational institutions. This will make many schools and students afford the ICT facilities for personal use.
- vi. The government should employ more computer teachers and deploy them to public primary schools. This will boost the teaching and learning of computer education in public primary schools.

- vii. The government should develop the political will to implement all ICT policies in all the primary schools across the country.
- viii. The government should fight all forms of corruption in the administration of primary school education in the country. ICT facilities installed in schools should be properly monitored and supervised.

### **Conclusion:**

In conclusion, this paper observed that Public primary school students are facing problems of using ICT for learning in their respective educational institutions. The paper identified inadequate funding of ICT program, inadequate ICT facilities, poor internet services, unstable power supply, high cost of ICT facilities, shortage of computer teachers, poor implementation of ICT policies, poor ICT literacy of students, corruption, and insecurity as the challenges hindering effective using of ICT by public primary schools students in Nigeria. To solve these challenges, this paper suggested: that the government should increase the funding of ICT programs in all the public primary schools in the country. This will make funds available for school administrators to pursue adequate ICT facilities for students' use. The government should provide adequate ICT facilities in all public primary schools. This will provide opportunities for students to use ICT for learning in their schools. The government should ensure that internet services providers are providing quality internet services across the country and that more rural and communities are covered with internet services, etc.

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