Problem Affecting the Utilization of ICT for Curriculum Delivery in Public Secondary Schools in Ovia North East Local Government Area of Edo State

Regina Oghenerie Okwe & Dr. (Mrs) Eunice Oghosa Eromosele

DEPARTMENT OF CURRICULUM AND INSTRUCTIONAL TECHNOLOGY FACULTY OF EDUCATION UNIVERSITY OF BENIN
Correspondence: regina.okwe@uniben.edu; eunice.eromosele@uniben.edu.

Abstract
This study investigated the issues affecting ICT utilization in public secondary schools within the Ovia North East Local Government Area of Edo State. Two research questions were raised and answered. The population of the study was Twenty-five (25) public senior secondary school principals in Ovia North-East Local Government Area of Edo State. The principals were considered suitable respondents because they are directly responsible for overseeing School administration and are conversant with the level of ICT facility availability, utilizatized, and the challenges encountered in their respective schools. The instrument used in eliciting information was a questionnaire titled: Problems Affecting the use of ICT Utilization in school Administration in Ovia North-East Local Government Area of Edo State. (PAIUSA). The study utilized a descriptive design, using a checklist and a questionnaire administered to the principals of all 25 public secondary schools in the study area. Data collected through these instruments were analyzed using percentages, mean, and standard deviation. A decision rule was adopted such that items with a mean score of 2.60 and above were considered Accepted, while items with a mean score below 2.60 were considered Rejected.The findings indicated that the availability of ICT facilities in these schools was very low. The study identified several factors hindering effective ICT utilization: limited infrastructure, inadequate ICT facilities, unreliable power supply, and insufficient knowledge of ICT use within schools. Based on these findings, several recommendations were proposed.
Keywords: Utilization, Information Communication Technology and Administration of secondary schools.

Introduction

The world is undergoing a transformation as the industrial society of the 20th century rapidly transitions to the information society of the 21st century. This shift is fundamentally altering the way we live, particularly in education, social interaction, commerce, and political engagement (International Computer and Information Literacy Study. ICILS, 2024). Information technology is driving this change across all sectors, including the service industry, business, and education. Consequently, educational systems worldwide are under pressure to integrate Information and Communication Technology (ICT) to equip students with 21st-century knowledge and skills (ICILS, 2024).

ICT has become a crucial driver of teaching, learning, and economic activities. The ongoing technological revolution including new methods of capturing, processing, storing, and presenting information enhances productivity and competitiveness through improved access to knowledge (Digital media in education, 2025). Its significance is recognized not only in the workplace but also in the classroom, where ICT facilitates the integration of global knowledge, supports instructional delivery, and enriches student learning experiences. According to Olowonefa (2023), ICT enhances curriculum delivery by providing teachers with diverse pedagogical resources, supporting lesson planning, fostering interactive learning, and enabling efficient

assessment practices. For instance, ICT tools such as multimedia presentations, educational software, and online learning platforms have been shown to improve students' comprehension and engagement.

The integration of ICT in school administration brings benefits such as improved academic standards, financial management, and co-curricular support. ICT includes diverse tools, radio, television, cell phones, computers, networks, hardware, software, satellite systems, videoconferencing, and distance learning that can bolster school administration. In Nigeria, however, integrating ICT in schools faces persistent challenges. In North-Central public secondary schools, barriers include inadequate funding, poor infrastructure (including unstable power and internet), high costs of ICT hardware, lack of ICT-literate staff, and weak policy implementation (Madu and Mohammed, 2023). Similar issues appear nationwide: infrastructural inadequacies, insufficient training for educators, digital inequality between urban and rural areas, and gender disparities limit ICT integration's effectiveness (ODE ICT-Nigeria, 2023). Moreover, tech-phobia among teachers, resistance to change, school insecurity, and environmental factors further constrain ICT adoption (Nwakanma, 2025). Despite the government's attempts over the past decade to integrate ICT in educational institutions, significant obstacles persist: lack of ICT facilities, insufficiently trained administrators, power outages, outdated equipment, insecurity, lack of staff support, and unfavorable attitudes toward ICT usage remain prevalent. This paper investigates these challenges in the context of public secondary school administration in Ovia South East Local Government Area, Edo State, guided by two research questions.

Despite government efforts over the past decade to integrate ICT in Nigerian educational institutions, significant obstacles remain: lack of adequate ICT facilities, insufficient training for teachers, power outages, outdated equipment, insecurity, low staff support, and unfavorable attitudes toward ICT usage. These persistent challenges directly impact how effectively the curriculum is delivered in schools. This study therefore investigates these issues in the context of curriculum delivery in public secondary schools in Ovia North-East Local Government Area of Edo State, guided by two key research questions.

Gray and Smith (2007) observed that modern principals face challenges from technological changes, attitudinal issues, and lack of ICT competence. They also face high ICT costs, poor physical infrastructure, and ICT skills deficiencies. Similar barriers are still being reported in contemporary research. In FCT, Abuja, administrators cited unstable internet, unreliable power, steep technology costs, and insufficient ICT training as major bottlenecks (Olowonefa, 2023).

Whitehead, Jensen, and Boschee (2003) argued that integrating the latest technology in classrooms prompts educators to reassess school programs and policies and examine the impact of data-processing equipment on teaching and learning. These rapid changes compel administrators and educators to analyze the academic and social needs of their students. This perspective is echoed in a national-level proposal that emphasizes curriculum redesign, infrastructure development, and teacher re-skilling to align educational practices with digital demands (Aboderin, 2025).

Taylor and Hogenbirk (2001) suggested that professionals might become outdated without integrating scientific and technological advancements into education policies. Developing countries, such as Nigeria, face challenges in integrating ICT into educational institutions, including limited connectivity, inadequate ICT infrastructure, and high equipment costs. Other issues include outdated equipment, power outages, lack of

trained personnel, and inadequate facilities (Kabanda, 2012). These challenges persist, as evidenced by ongoing digital inequality marked by limited broadband reach, high hardware prices, and low digital literacy among educators and students (Digital divide in Nigeria, 2025). Over the past decade, the Nigerian government has made efforts to integrate ICT into educational institutions. However, these efforts have consistently been hampered by issues such as lack of ICT facilities, insufficient training for school administrators, power instability, outdated equipment, insecurity, low staff cooperation, and unfavorable attitudes toward ICT usage. This paper investigates these continuing challenges in the context of public secondary school administration in the Ovia South East Local Government Area, Edo State, guided by two key research questions.

Statement of the Problem

Despite the global recognition of Information and Communication Technology (ICT) as a driver of efficiency in teaching, learning, and school administration, its utilization in Nigerian public secondary schools remains inadequate. In Ovia North East Local Government Area of Edo State, many schools still rely on manual record-keeping and traditional administrative practices due to poor ICT infrastructure, erratic power supply, and limited internet connectivity. This situation reduces the effectiveness of school administration and widens the gap between Nigerian schools and those in technologically advanced countries. Although government policies emphasize ICT integration in education, their implementation is hampered by insufficient funding, outdated facilities, and inadequate teacher and principal training. Attitudinal resistance, insecurity, and vandalism of ICT equipment further worsen the problem. Consequently, students are deprived of digital skills critical for higher education and the modern workforce, while administrators face inefficiencies in school management. These challenges necessitate an investigation into the problems affecting ICT utilization in public secondary schools in Ovia North East, Edo State.

Purpose of the Study

The primary purpose of this study is to investigate the problems affecting the utilization of Information and Communication Technology (ICT) in the administration and teaching, learning processes of public secondary schools in Ovia North East Local Government Area of Edo State. Specifically, the study seeks to:

1. Find out the availability of ICT facilities in public secondary schools in Ovia North East Local Government Area of Edo State.
2. Examine the challenges of ICT utilization in the administration of public secondary schools in Ovia North East Local Government Area of Edo State.
3. investigation the problems affecting ICT utilization in public secondary schools in Ovia North East Local Government Area of Edo State.
4. Determine the available ICT used in teaching and learning in public secondary schools in Ovia North East Local Government Area of Edo State.

Research Question

1. What is the level of availability of ICT facilities in public secondary schools in Ovia North East Local Government Area of Edo State?
2. What are the challenges of ICT utilization in the administration of public secondary schools in Ovia North East Local Government Area of Edo State?

Methodology

This section entails the procedure employed in carrying out this study.

The descriptive survey design was used for the study. This design is suitable for collecting information that describes an

existing phenomenon. This method is choosing for the study because it helps in collecting information on the variables of interest without any manipulation and report the findings are given as observed or known.

The population of the study comprised all the twenty-five **(**25) public senior secondary school principals in Ovia North-East Local Government Area of Edo State. The principals were considered suitable respondents because they are directly responsible for overseeing School Administration and are conversant with the level of ICT facility availability, utilization, and the challenges encountered in their respective schools. Given the relatively small population size, the study adopted a census approach, in which the entire population of 25 principals was used. This eliminated the need for sampling, ensured complete representation, and enhanced the reliability of the findings since every unit of the population was included. The instrument that was used for this study is a titled" Problems Affecting the use of ICT Utilization in School Administration in Ovia North-East Local Government Area of Edo State. (PAIUSA). The instrument has two sections. Section A contain bio-data information of respondents, Section B contained items that focused on ICT-related challenges including inadequate infrastructure, poor funding, insufficient teacher training, unstable electricity supply, resistance to change, and lack of technical support for ICT use in classrooms. The items in this section were structured in a four-point scale of Strongly Agree = 4, Agree =3, Disagree = 2 and Strongly Disagree = 1for all positively worded items and reverse for all negatively worded items. To establish the validity of the instruments, copies of the checklist and questionnaire were submitted to two experts in Curriculum and Instructional Technology. Their corrections and suggestions were incorporated in the final copy of the instrument. The reliability of the instrument was determined through a pilot test conducted with five principals in Ikpoba-Okha Local Government Area of Edo State who were not part of the study population but shared similar characteristics. Data obtained from the pilot test were analyzed using the Cronbach Alpha method to determine internal consistency. The analysis yielded a reliability coefficient of 0.82, which was considered acceptable for the study, confirming that the instrument was reliable. Data collected were analyzed using percentages, mean standard deviation. A decision rule was adopted such that items with a mean score of 2.60 and above were considered Accepted, while items with a mean score below 2.60 were considered Rejected.

Results

Research Question 1: What is the level of availability of ICT facilities in public secondary schools in Ovia North East Local Government Area of Edo State?

Table 1
The level of availability of ICT facilities in public secondary schools in Ovia Nort East Local Government Area of Edo State?

Facilities	Required	Availability	Percentage Availability	Remark
Computer Laboratories	75	13	17.33	Not Adequate
Desktop Computers	505	87	17.22	Not Adequate
Laptops	505	68	13.46	Not Adequate
Scanners	50	12	24	Moderately Adequate
Printers	50	36	72	Very Adequate
Photocopiers	50	11	22	Moderately Adequate
Internet Facilities	50	23	46	Moderately Adequate
Projector	25	04	16	Not Adequate
Video Conferencing	25	00	00	Not Available

N = 25 Decision Rule: 2.60% and above – Available, below2.60% Not Available

Data in Table 1 shows the available ICT used in public secondary schools in Ovia North East Local Government Area of Edo State. It can be seen from the Table that the available ICT tools are computer laboratories, desktop computers, laptops, scanners, projection screens scanners, photocopiers, internet and printers.

Research Question 2

What are the challenges of ICT utilization in public secondary schools in Ovia North East Local Government Area of Edo State?

Table 2: Challenges of ICT utilization in the public secondary schools Ovia North East Local Government Area of Edo State?

Challenges	SA	A	D	SD	X	SD	Remark
Limited Infrastructure	12	4	4	5	2.92	0.14	Agreed
Inadequate ICT facilities	11	6	4	4	2.96	0.15	Agreed
Epileptic power supply	9	8	4	4	2.88	0.14	Agreed
School Administrator Knowledge use of ICT	10	7	2	6	2.84	0.50	Agreed
Inadequate Manpower	3	6	5	9	2.57	0.64	Disagreed
Poor Management of facilities and equipment's	4	7	3	11	2.16	0.57	Disagreed

N = 25 Decision Rule: 2.60% and above – Agree, below 2.60% Disagreed

Data in Table 2shows the availableICT utilization in public secondary schools in Ovia North East Local Government Area of Edo State. It can be seen from the Table that the available ICT tools areKnowledge use of ICT, power supply, ICT facilities and Infrastructure

Discussion

The first finding of this study revealed that the level of availability of ICT facilities in public secondary schools in Ovia North East Local Government Area of Edo State is very low. The researchers attributed this finding to the government's and other stakeholders' lackadaisical attitude toward providing ICT facilities for effective administration and management. This mirrors findings from Enugu State, where only minimal ICT resources, primarily computerswere available, and accessibility was constrained by poor funding, inadequate infrastructure, and limited ICT expertise among teachers (Jamoh, 2023). Similarly, research in Nasarawa State reported that public secondary schools had significantly fewer functioning ICT tools compared to private schools, further pointing to disparities in availability (Eggon, Allu, and Ene, 2024).

The second finding indicated that limited infrastructure, inadequate ICT facilities, an unreliable power supply, and school administrators' limited ICT knowledge are the primary challenges hindering the utilization of ICT facilities in the administration of public secondary schools. Recent studies corroborate this, highlighting recurring obstacles such as unstable electricity, insufficient ICT tools, high costs, poor digital literacy among educators, and weak policy implementation (Madu and Mohammed, 2022; Oyetoro and Onifade, 2023). In FCT, Abuja, administrators cited unstable internet services, unreliable power supply, and lack of ICT expertise as key impediments, along with inadequate funding and policy gaps (Olowonefa, 2023). Similarly, a comprehensive study on Nigerian

ICT policy and infrastructure revealed that inconsistent electricity, poor connectivity, and lack of sustained funding severely limited ICT adoption and utility in schools (Eke and Alex, 2024).

Conclusion

The researchers concluded that the availability of ICT facilities in public secondary schools in Ovia North East Local Government Area of Edo State is critically low. Without significant and sustained intervention, the challenges impeding ICT utilization in school administration will persist. As a result, secondary schools in this region may continue to miss out on the efficiency, accuracy, and transparency that technology can offer to management practices. To unlock these benefits, there must be a coordinated effort from governments and stakeholders to address systemic infrastructural deficits, inadequate funding, and gaps in digital literacy among school leadership.

Recommendations

Based on the findings of this study, the following recommendations are made:

1. **Provision of ICT facilities:** The government, philanthropists, and community leaders should collaborate to provide ICT facilities that support effective school administration. Adequate investment in ICT infrastructure is essential to ensure efficiency and transparency in managing secondary schools (Olowonefa, 2023).
2. **Capacity building for school principals:** School principals should be continuously educated on how to integrate ICT into school administration. This can be achieved through seminars, workshops, and professional development programs that expose them to modern administrative techniques and digital tools (Ukozor and Muhammad, 2024).
3. **Uninterrupted power supply:** The government, through relevant agencies, should provide schools with reliable and uninterrupted power supply, as a consistent energy source is fundamental for the utilization of ICT resources in administration (Eggon, Allu, and Ameh, 2024).

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