



# ASSESSMENT OF INFORMATION AND COMMUNICATION TECHNOLOGY (ICT) USAGE BY EDUCATIONAL ADMINISTRATORS OF PUBLIC SECONDARY SCHOOLS IN OSUN STATE

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## Abstract

This article investigates the assessment of information and communication technology (ICT) by school administrators in public senior secondary schools in Osun State, specifically focusing on Ife/Ijesa Education District. A descriptive survey approach was employed for this study, which included a population of 32 public secondary schools and 32 principals within the Ife/Ijesa education area. The sample consisted of 10 public secondary schools and 10 administrators purposefully selected for the study. Data was primarily collected using a self-structured questionnaire titled “Information and Communication Technology Competences Questionnaire” (ICATCQ). Face and content validity assessment was conducted to ensure the instrument’s internal consistency. The test-retest reliability of the instrument was evaluated in 10 public secondary schools outside the sample area over a two-week interval resulting in a reliability co-efficient of 0.89, which is sufficiently high to confirm the instruments’ reliability. Descriptive statistics including frequency counts and percentages were used to analyze the data. The study found that the use of ICT in schools is mainly delegated to school secretaries and Heads of Department, with very few ICT resources mobilized by the principals. This has led to a lack of essential equipment, such as computers, internet services, scanners, and photocopiers in most schools, hindering effective ICT integration. The study recommends that principals of public secondary schools engage more actively with ICT resources to better understand the challenges and benefits associated with their use, ultimately promoting effective ICT integration in school administration.

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**Keywords:** computer usage, educational administrators, information and communication technology, secondary school.

## Introduction

The continuous rise of Information and Communication Technology (ICT) has significantly impacted the functioning of modern societies. ICT plays an increasingly important role in our daily lives and within the educational system. Proficiency in using computers has become a requirement for enrollment in any educational institution (Al-Rahmi et al., 2020). Businesses have recognized that computers and other ICT tools can enhance efficiency, leading to a growing demand for computer literacy in Nigeria (Ogunode and Lilian, 2022). Unfortunately, many educators, particularly in the Ife/Ijesa school region of Osun State, Nigeria, have not fully embraced the new ICT skills necessary to effectively engage students (Onyekachi and Mohammed, 2021). Additionally, inadequate ICT infrastructure contributes to the negative attitudes that educators and administrators hold towards technology. Many teachers still receive training using outdated materials and have limited or no access to ICT; in fact, many schools lack even a single computer (Mohd et al., 2021).



There remains a significant gap in the adoption and use of ICT among school administrators, despite its potential to enhance education. Some administrators struggle to understand the specific applications and benefits of ICT, which impairs students' ability to keep pace with technological advancements. Furthermore, there is often a lack of coordinated efforts to secure ICT infrastructure that would support teaching, as well as initiatives to improve the technological literacy of both principals and teachers. In light of these issues, the study aims to assess the usage of Information and Communication Technology (ICT) by educational administrators in secondary schools in Osun State.

### Research Questions

The following research questions were raised and answered in the study:

1. What is the level of school administrator usage of ICT in Ife/Ijesa education district of Osun State?
2. What is the status of the school administrators' computer knowledge in Ife/Ijesa district of Osun State?
3. What are the factors hindering the ICT applications by educational administrators in Ife/Ijesa education district of Osun State?

### Methodology

A descriptive survey method was employed was employed for this study. The population consisted of 32 public secondary schools and 32 principals within the Ife/Ijesa education districts. The sample consisted of ten public secondary schools and ten administrators purposefully selected for the study. Data was collected using a self-structured questionnaire titled "Information and Communication Technology Competences Questionnaire" (ICATCQ). The questionnaire was divided into two sections. Section A collected demographic data from the respondents, while Section B contained questions that asked respondents to indicate statements reflecting their level of ICT usage accurately. To ensure the validity and reliability of the instrument, face and content validity assessments were conducted by experts. Additionally, test-retest reliability was performed in 10 public secondary schools outside the sample area with an interval of two weeks. The data collected were analyzed using the Pearson Product Moment Correlation Statistics, yielding a reliability coefficient of 0.89, which is high enough to deem the instrument reliable. Descriptive statistics, including frequency and percentages, were used to analyze the data.

### Results

**Research Question 1:** What is the level of school administrator usage of ICT in Ife/Ijesa education district of Osun State?

**Table 1:** *Level of school administrator usage of ICT*

S/N	School Administrators' Usage of ICT	None	Little	Moderate	High
1.	Microsoft Word	0	60	20	20
2.	Microsoft Excel	0	70	20	10
3.	PowerPoint	30	60	10	0
4.	Email and Internet	20	60	20	0

The first research question focused on the level of ICT usage by school administrators in the Ife/Ijesa education district of Osun State. The findings indicated that a majority of school principals have limited computer literacy: 60% are familiar with Microsoft Word, PowerPoint, email, and the Internet, while 70%



are knowledgeable in Microsoft Excel. Consequently, this limited proficiency hampers their ability to effectively implement ICT in school administration.

It is concerning that 30% and 20% of the principals lack basic skills in PowerPoint, email, and internet usage. Informal interviews with these principals revealed that they often rely on school secretaries to retrieve information from the Internet or seek assistance from anyone available to help with administrative tasks that require computer skills.

These findings align with Flamagan's (2003) research, as cited in Evoh (2007), which noted that informal ICT leaders often emerge from classrooms, libraries, and computer labs to assume administrative roles. Medeiros (2012) also reported that a generation gap, when not addressed through continuous training and development, negatively impacts computer literacy and ICT usage, particularly among older individuals.

**Research Question 2:** What is the status of the school administrators' computer knowledge in Ife/Ijesa district of Osun State?

**Table 2:** School administrators' computer knowledge

S/N	Computer Knowledge		Frequency	Percentages %
1.	Data Analysis		1	10.0
2.	Records Maintenance		2	20.0
3.	Internet and Email		1	10.0
4.	Online registration		6	60.0
	Total		10	100.0

The text outlines the status of computer knowledge among school administrators. According to Table 2, 60% of respondents indicated familiarity with online registration, while 20% reported knowledge in record maintenance, and 10% in data analysis, internet use, and email. Many respondents admitted to having access to online registration systems in their schools, which they primarily use to register students for WAEC and NECO exams. Additionally, 60% of respondents use online registration as a crucial resource for maintaining important school records, though others do not utilize ICT resources for academic purposes.

These results align with the findings of Farrel (2007), which emphasized that ICT integration is essential for various aspects of administration, including personnel management, student administration, resource management, financial administration, and overall school management. Furthermore, the findings are consistent with those of Ereyi, Adua-Ogiegbaen, and Iyamu (2005), who suggested that when school administrators adopt ICT tools and resources, they encourage their deputies, such as Vice Principals and Heads of Departments, to similarly integrate ICT into their administrative tasks. This integration ultimately facilitates easier school administration. Additionally, the conclusions support the position of Eshanrenana and Kpangbon (2010), who asserted that the use of ICT by secondary school administrators is vital due to the numerous benefits it offers in executing administrative duties.

**Research Question 3:** What are the factors hindering the ICT applications by educational administrators in Ife/Ijesa education district of Osun State?

**Table 3:** *Factors hindering ICT applications*

S/N	ICT Applications	Frequency	Percentages %
1.	Power Outage	2	91
2.	Computer Illiteracy	2	70
3.	High Maintenance Cost	2	40
4.	Lack Of Enough Computers	2	60
5.	Slow Internet Connectivity	2	70

Research question three examined the factors hindering the use of ICT applications by educational administrators in the Ife/Ijesa Education District of Osun State. Table three shows that 91% of respondents identify power outages as the primary factor hindering ICT usage in their schools. Additionally, 70% of respondents acknowledge that ICT illiteracy is a significant contributing factor, while 60% attribute the issue to a lack of sufficient computers. Furthermore, 40% of respondents cite high maintenance costs for ICT resources as a concern, and another 70% point to slow internet connections as a major obstacle to integrating ICT in school administration. These findings align with research by Oloo (2009), which indicated that many school principals were inadequately prepared to integrate ICT in administration due to a shortage of computers, insufficient training on educational applications, the absence of policy strategies for integration, frequent power outages, and high levels of poverty (Farel, 2007; Obi, 2003).

### Conclusion

Several factors emerged as the main contributors to poor ICT integration in the administration of public secondary schools. The study revealed that the use of ICT in these schools is primarily delegated to school secretaries and Heads of Department, with very few ICT resources mobilized by the principal. As a result, many schools lack essential tools such as computers, internet access, scanners, and photocopiers, which are critical for effective ICT integration.

### Recommendations

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

1. Principals of public secondary schools should engage more with ICT resources to better understand the challenges and benefits associated with their use, leading to improved ICT integration in school administration.
2. The Ministry of Education, in collaboration with other organizations, should provide sufficient ICT resources to schools to facilitate easy access and effective integration of ICT in administration.
3. The government must ensure that essential infrastructure is in place to guarantee a reliable electricity supply, which is necessary for driving ICT usage in schools.

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