Chukwuemeka Odumegwu Ojukwu University Journal of Arts and Social Science Education (COOUJOASSE) Vol. 4, No.1, March, 2025

INFORMATION AND COMMUNICATION TECHNOLOGY COMPETENCIES AND TEACHERS JOB PERFORMANCE IN PUBLIC SECONDARY SCHOOLS IN ANAMBRA STATE

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ABSTRACT

The study investigated the relationship between Information and Communication Technology (ICT) competencies and teachers job performance in public secondary schools in Anambra State. Two research questions guided the study and the correlational research design was used for the study. The population of the study comprised 5396 (5,133 teachers and 263 principals) in 263 public secondary schools in six Education Zones in Anambra State. A total of 579 respondents (513 teachers and 66 principals) were drawn through proportionate stratified and simple random sampling technique for the study. Two structured instruments were used for data collection. The instruments were validated by three experts. The application of Cronbach Alpha yielded reliability coefficient values of 0.84 for ICTCQ and 0.81 for TJPQ respectively. Data was analysed using Pearson Correlational Statistics. The finding of the study revealed that there is a high positive relationship between computer technology competencies and teachers job performance in public secondary schools in Anambra State. Findings further showed that there is a very high positive relationship between internet technology competencies and teachers job performance in public secondary schools in Anambra State. Based on these finding, the researcher concluded that ICT competencies have high positive relationship with teachers' job performance in public secondary schools in Anambra State. The researcher based on this conclusion, recommended among others that Government at all levels in conjunction with the Post Primary Schools Service Commission (PPSSC) should organize in-service training targeted at improving teachers' computer technology competencies.

Keywords: Information and Communication Technology (ICT), Competencies, Teachers Job Performance, Public, Secondary Schools

Introduction

Secondary education is the education that students get after successfully completing nine years of primary school. The main goals of secondary education in Nigeria are to prepare students for meaningful living in the society as well as higher education. The study centred on public secondary schools. According to Mduma and Mkulu (2021), public secondary schools are secondary schools that get funding from a general state, county, or local government tax, either entirely or partially. A public secondary school is one that is governed by a school board or other administrative body and gets the majority of its financing from the government. As a result, all secondary schools that receive public funding are referred to as public secondary schools. Ideally, public secondary schools should be centres of quality education, providing equitable chances for all Nigerian students to reach their full potential and contribute to the country's

growth. However, reality frequently falls short of such great aspirations. Public secondary schools in Nigeria have experienced several obstacles that have hampered their capacity to accomplish their intended objectives. Several authors and scholars have identified poor teacher job performance as a major contributing cause to Nigeria's public secondary education deficiencies (Abioye, 2021; Okoro, 2019). Okoro contended that the quality of instruction is critical in determining educational results, and that poor teaching has long-term ramifications for students' academic progress and general development.

Job performance can be described as "an act of accomplishing or executing a given task. It can also be defined as the ability to skillfully combine the right behaviour towards achieving organisational goals and objectives (Olaniyan, 2019). Consequently, teacher job performance refers to how a member of the teaching staff fulfils their role duties, completes required tasks, and behaves in the school environment. It indicates an individual teacher's capacity to efficiently achieve independent goals in the workplace. Karakas (2020) defined teacher job performance as the individual teacher's work achievement after exerting the necessary effort on the job, associated with meaningful work, an engaged profile, and supportive colleagues and employers. In this study, teacher task performance refers to how effectively a teacher carries out their professional duties and responsibilities. This includes planning and delivering lessons, assessing student progress, managing classroom behaviour, and engaging in continuous professional development. However, in recent times there has been worry that teachers' task performance has been impacted by teachers' failure to utilize Information and Communication Technology (ICT) in teaching subjects in secondary schools.

Information and communication technology (ICT) in education covers the use of computer's online self-learning package, interactive CDs, satellites, radio, optical fiber technologies, e-presence system and all types of information and communication technology (ICT) hardware and software. Information and communication technology is the integration of computer technology, mainly in the form of internet, and information management systems. It give users the opportunities to handle text and images, numbers and graphs, instructions, sound and music and process information by organizing and re organizing storing and retrieving, sorting and analyzing, presenting and communicating. According to Okechukwu and Agbo (2021), the role ICT plays in teaching and learning of business education cannot be overemphasized. Okechukwu and Agbo stated that the integration of ICT in education provides opportunities for students to operate computer, store information, manipulate and retrieve information, active learning and self-responsibility for learning such as distance learning, motivate students to continue learning outside school environment. Oyedekun and Adeola-Akande (2022) held that ICT has the capability of engaging students in instructional activities and increasing their learning by helping them to solve complex problems to enhance their cognitive skills. These technological tools and resources include computers, the internet (websites, blogs, and emails), live broadcasting technologies (radio, television, and webcasting), recorded broadcasting technologies (podcasting, audio and video players, and storage devices), and telephony (fixed or mobile, satellite, video conferencing, etc.). The study focused on computer and internet technologies.

Computer is an electronic device that receives, stores, processes and retrieves information. Computer technology focuses on the use of technological facilities for managing and disseminating information. Computer technology is important ICT tool because it exposes students to the use of various office technologies such as Microsoft Word, MS Excel, MS Power Point and MS Access for effective work performance. Okechukwu

and Agbo (2021) noted that one of the major reforms needed in teacher education in Nigeria has to do with exposing teachers to and facilitating their acquisition of computer technology competencies. Computer technologies include all removable media such as optical discs, disks, flash memories, video books, multimedia projectors, interactive electronic boards, and continuously emerging state-of-the-art PCs (Tumburku et al., 2019). Jim et al. (2024) identified computer technology requirements for century, including word processing, spreadsheets, database management, PowerPoint presentations, internet, digital cameras, projectors, and microfilming. Just like computers, internet technology is another component of ICT.

Internet technologies refer to products or services that can be accessed or utilized in conjunction with the World Wide Web. These technologies can be accessed through a web browser or linked to other web-based technologies to synchronize data. Tumburku et al. (2019) stated that internet technologies are data resources that are maintained by contemporary ICT equipment, modified and stored in cyberspace in a tangible and compact form. They can be accessed simultaneously from countless locations by multiple users. Abubakar and Salmanu (2018) defined internet technologies as web-connected devices such as desktop computers, laptops, mobile phones, data cards and portable gaming consoles. These technologies assist students in accessing information from any location. Zhou et al. (2020) describe internet technologies as electronically stored information that is accessible through electronic systems and networks. In the context of this study, internet technologies refer to digital documents made available to library users through computer-based information retrieval systems (Ukwetang et al., 2021). Egbri (2015) asserted that internet application are programmes and softwares that allow users to access the world wild web such as electronic libraries, e-mails, browsers, search engines and social media. These technologies have become a valuable source of knowledge due to their efficient presentation using multimedia techniques. Zhou et al. (2020) noted that examples of internet technologies are e-mail, online libraries, social networks and web browsers. Sadly, there are cases of teachers' inability to use ICT tools because they lack is a reflection of their lack of ICT competencies.

Competency is a combination of knowledge, skills, ability, attitude, and behaviour used to improve performance or as the state or quality of being adequately qualified and capable of performing a given role. It refers to the behaviours one demonstrates to meet the minimum performance standards (Wordu & Isiah, 2019). Sampson and Fytros in Iwuka et al. (2021) defined competence as the unique qualities (skills, knowledge, and attitudes) that one has or must acquire in order to do an activity within a particular setting. Competence is also defined as a collection of relevant knowledge, abilities, and attitudes that enable a person to carry out tasks associated with a particular profession or job function in an efficient manner and in accordance with accepted employment standards. Ikwuka et al. (2021) defined ICT competencies as the ICT knowledge and abilities that teachers need to effectively teach in secondary schools. The researcher therefore wonders if ICT competencies correlate teachers' job performance. It is therefore against this background that the researcher investigated the correlation between ICT competencies and teachers job performance in public secondary schools in Anambra State.

Statement of the Problem

Teachers are crucial stakeholders in fostering quality teaching and learning in secondary schools. Their role in shaping the minds of young learners and preparing them for future academic and professional endeavors cannot be overstated. However, in recent times, it appears that teachers in public secondary schools have encountered significant challenges in performing

their duties optimally. This decline in teacher performance manifests in various ways. For instance, there have been reports of increased absenteeism among teachers, with some failing to attend classes regularly or arriving late. Others struggle to effectively manage their classrooms, resulting in disruptive learning environments. Some teachers have been observed to rely heavily on outdated teaching methods, failing to engage students or adapt to modern educational practices. Additionally, there are cases where teachers do not adequately prepare for lessons, leading to subpar content delivery and ineffective use of instructional time. If these issues persist unchecked, they could have severe implications for the quality of secondary education in Anambra State. The potential consequences include a decline in student academic performance, reduced motivation among learners, and a widening gap between the skills acquired in school and those required in higher education or the job market. The researcher wonders if teachers' possession of Information and Communication Technology (ICT) competencies could potentially improve teachers' job performance. Finding an answer to this question requires an empirical such as the present study.

Purpose of the Study

The main purpose of the study was to investigate the relationship between ICT competencies and teachers job performance in public secondary schools in Anambra State. The specific purposes of the study were to:

1. Ascertain the relationship between computer technology competencies and teachers job performance in public secondary schools in Anambra State.
2. Find out the relationship between computer technology competencies and teachers job performance in public secondary schools in Anambra State.

Research Questions

The following research questions guided the study:

1. What is the relationship between computer technology competencies and teachers job performance in public secondary schools in Anambra State?
2. What is the relationship between internet technology competencies and teachers job performance in public secondary schools in Anambra State?

Methodology

The correlational research design was adopted for the study. The study was conducted in Anambra State, Nigeria. The population of the study comprised 5396 (5,133 teachers and 263 principals) in 263 public secondary schools in six Education Zones in Anambra State. A total of 579 respondents (513 teachers and 66 principals) were drawn through proportionate stratified and simple random sampling technique for the study. The sample size comprised 10% of teachers and 25% population of principals. The choice of 10-25% was in line with the recommendations of Nworgu (2015) who stated that 10 to 80 percent of any given population is adequate for the research work. Two structured instruments were used for data collection. The first questionnaire was titled "Information and Communication Technology Competencies Questionnaire (ICTCQ). The instrument is made up of two sections: A and B. Section A consisted of 10 items on Teachers computer technology competencies while cluster Section B contained 10 items on teachers' internet technology competencies. The second instrument was titled; Teachers Job Performance Questionnaire (TJPQ)" The items were placed on 4-point scale of Strongly Agree (SA), Agree (A), Disagree (D) and Strongly Disagree (SD). The range of scores were weighted as 4, 3, 2 and 1 respectively.

The instruments were validated by three experts. Two experts in Educational management and one expert in Measurement and Evaluation, all from Department of Educational Foundations, Chukwuemeka Odumegwu Ojukwu University, validated the instruments. The instruments were pilot tested using a single administration on a representative sample of 20 teachers randomly selected from public secondary schools in Enugu state. The schools were chosen for the test because they share similar characteristics with the schools in the area of study. After they had responded to the instruments, the completed copies were collated to determine the internal consistency of the items in each instrument. This was done using Cronbach Alpha. The application of Cronbach Alpha on the data collected yielded reliability coefficient values of 0.84 for ICTCQ and 0.81 for TJPQ. The researchers administered the instruments to the respondents with the help of six research assistants. Out of the 579 copies of questionnaire administered, 533 copies were returned in good condition. This amounted to 92 percent questionnaire return rate. Data was subjected to inferential analysis, using the Statistical Package for Social Sciences (SPSS 20.0) using Pearson Correlational Statistics. The co-efficient "r" obtained was used to ascertain how each of the independent variables correlate the dependent variable. The research questions were interpreted as follows:

Correlation Coefficient	**Interpretations**
0.8 to 1.0 (negative or positive)	Very High
0.6 to 0.8 (negative or positive)	High
0.4 to 0.6 (negative or positive)	Average
0.2 to 0.4 (negative or positive)	Low
0.0 to 0.2 (negative or positive)	Very Low (no relationship)

Results

Research Question 1: What is the relationship between computer technology competencies and teachers job performance in public secondary schools in Anambra State?

Table 1: Summary of Pearson Correlation Analysis between Computer Technology Competencies and Teachers Job Performance in Public Secondary Schools in Anambra State

		Computer Technology	**Teachers Job Performance**	**Remark**
Computer Technology	Pearson Correlation	1	.771**	High Positive relationship
	Sig, (2-tailed)		.000	
	N	533	533	
Teachers Job Performance	Pearson Correlation	.771**	1	
	Sig, (2-tailed)	.000		
	N	533	533	

** Correlation is significant at the 0.05 level (2-tailed).

Source: Field Study, 2024

Data in Table 1 reveals that the Pearson's Correlation Coefficient is r = 0.771. This shows that computer technology competencies have a high positive relationship with

teachers' job performance in public secondary schools in Anambra State. This implies that teachers who possess computer technology competencies would have greater job performance than those who do not possess computer technology competencies. Thus, there is a high positive relationship between computer technology competencies and teachers job performance in public secondary schools in Anambra State.

Research Question 2: What is the relationship between internet technology competencies and teachers job performance in public secondary schools in Anambra State?

Table 2: Summary of Pearson Correlation Analysis between Internet Technology Competencies and Teachers Job Performance in Public Secondary Schools in Anambra State

		Internet Technology	Teachers Job Performance	Remark
Internet Technology	Pearson Correlation	1	.811**	Very High Positive relationship
	Sig, (2-tailed)		.000	
	N	533	533	
Teachers Job Performance	Pearson Correlation	.811**	1	
	Sig, (2-tailed)	.000		
	N	533	533	

** Correlation is significant at the 0.05 level (2-tailed).

Source: Field Study, 2024

Data in Table 2 reveals that the Pearson's Correlation Coefficient is r = 0.811. This shows that internet technology competencies have a very high positive relationship with teachers' job performance in public secondary schools in Anambra State. This implies that teachers who possess internet technology competencies would have better job performance than those who do not possess internet technology competencies. Thus, there is a very high positive relationship between internet technology competencies and teachers job performance in public secondary schools in Anambra State.

Discussion

The finding of the study revealed that there is a high positive relationship between computer technology competencies and teachers job performance in public secondary schools in Anambra State. This finding indicates that the possession of computer technologies competencies will improve teachers' job performance. This finding is in agreement with Tumburku et al. (2019) who reported that there exist a relationship between teachers' computer literacy and their job performance; and that teachers' computer literacy was a positive predictor of their performance. Tumburku et al. further concluded that to increase teachers' job performance, it is necessary to promote teachers' access to computers, knowledge and skills of operating computers as well as their attitudes towards using digital devices. This is similar to the finding of Wordu et al. (2021) who reported that digital literacy predicted teachers' job performance.

The finding of the study revealed that there is a very high positive relationship between internet technology competencies and teachers job performance in public secondary

schools in Anambra State. This finding shows that when teachers possess internet technology competencies it improves their job performance. This finding is in agreement with Abubakar and Salmanu (2018) who revealed that there is a significant relationship between internet technologies competencies and teachers job performance. Abubakar and Salmanu further found significant difference in the opinion of teachers with internet technology competencies and those without internet technology competencies. This is similar to the findings of Tumburku et al. (2019) who revealed that there is a high positive relationship between internet technology competencies and teachers' job performance.

Conclusion

Based on the findings of the study, the researcher concludes that there is a high positive relationship between ICT competencies and teachers job performance in public secondary schools in Anambra State. The possession of computer and internet technologies competencies would improve teachers' job performance in public secondary schools in Anambra State. it is therefore imperative that measures are put in place to improve teachers ICT competencies for better teachers' performance in public secondary schools in Anambra State.

Recommendations

The following recommendations were made based on the findings of the study:

1. Government at all levels in conjunction with the Post Primary Schools Service Commission (PPSSC) should organize in-service training targeted at improving teachers' computer technology competencies.
2. Government at all levels should ensure that internet facilities are available in and around the school premises for teachers to use in teaching in public secondary schools.
3. Principals of public secondary schools should seek collaborations with technology experts to offer specialized training and provide ICT resources for teachers in their schools.

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