



**ASSESSMENT OF THE USE OF INFORMATION AND COMMUNICATION TECHNOLOGIES  
IN SELECTED SECONDARY SCHOOLS IN FARIN-GADA, JOS NORTH LGA, PLATEAU  
STATE, NIGERIA**

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**ABSTRACT**

*This study is an assessment of the use of Information and Communication Technologies (ICT) in the secondary school education system. It seeks to evaluate the implementation of ICT on education as stated in the Nigerian National Policy for Information Technology. Despite the policy being in place it was observed that students still exhibit tendency of limited knowledge of ICT, hence the need for the study using these schools. A total of eight secondary schools were selected, both government and private owned (four each). The instrument used for data collection was the questionnaire, which were distributed to recipients in schools in the selected area and simple percentage was used in analyzing the data. The response rate was complete response with teachers having the highest of 60% and students 40%, making a total of 100%. Data were analyzed, findings made, conclusions drawn and recommendations were made, with teachers being expected to take the center stage in ICT use in secondary schools in Farin Gada, Jos North LGA of Plateau State, Nigeria*

**Keywords:** *Information and Communication Technology (ICT), Education, Policy*

**Introduction**

Education is a key factor in nation building. The Federal Government of Nigeria pursues universal education as an instrument for national development. Policies are being continuously formulated to ensure the growth of the educational system; hence the Nigerian National Policy for Information Technology (2001). Nigeria's educational system is three-tiered and classified as primary, secondary (which consist of academic and vocational training) and tertiary education. With the introduction of 6-3-3-4 system in 1986, secondary education since then has operated three years in junior secondary and three years in senior secondary cadres (Nigerian National Policy on Education 2008). It is important to note at this point that the new education policy of 9-3-4 is yet to become fully operational across the country, hence the reference to 6-3-3-4. The secondary level is very important for reasons such as:

1. Its emphasis is on both vocational and academic training, such that the student can be self-reliant without further education.
2. It bridges the gap between primary and higher level of education.
3. It is the stage whereby the student is academically prepared for professional and subject or area specification training in higher institution.

The Nigerian National Policy for Information Technology is said to be a catalyst for information transfer (Gbaje, 2007). It is a document that states the purpose, objectives and strategies of the use of ICT in Nigeria. According to the content of the Nigerian National Policy for Information Technology (2001), its mission statement is;

To 'USE IT' for:

- (i) Education
- (ii) Creation of Wealth
- (iii) Poverty Eradication
- (iv) Job Creation
- (v) Global Competitiveness

Information and Communication Technologies (ICT) is a term that includes all technology for the manipulation and communication of information. ICT can be used to find, develop, analyze and present information, as well as to model situations and solve problems. ICT enables rapid access to ideas and experiences from a wide range of people, communities and cultures, and allows pupils and students to collaborate and exchange information on a wide scale (Crown, 2010 cited in Khan, Bhatti & Khan, 2011). The purpose of ICT in education is generally to familiarize students with the use and workings of computers, and related social and ethical issues. ICT has also enabled learning through multiple intelligence as ICT has introduced learning through simulation games; this enables active learning through all senses (Gateway, 2010).

### **Statement of the Problem**

Despite the availability of educational policies as it relates to ICT use in secondary schools in Nigeria, the usage of ICT is still in its lowest ebb. Whether or not ICT are available in these secondary schools is yet to be ascertained. As availability determines use, it was observed that among children within the secondary school age, there are exhibitions of lack or limited knowledge and competency in ICT especially in area of educating, acquiring and enhancing knowledge within this educational level. This observation thus led to the need to examine the implementation of the policy based on utilization.

### **Purpose of Study**

The main purpose of this study is to examine the level of availability of ICT in secondary schools, implementation of the policy of use of ICT in secondary schools and the level of its use within these selected schools.

### **Research Questions**

1. What basic knowledge of ICT do teachers and students in Farin-Gada, Jos North LGA of Plateau State have?
2. What are the ICTs available in secondary schools in Farin-Gada, Jos North LGA of Plateau State?
3. What are the ICTs used for in teaching and learning in the secondary schools?

### **Review of Related Literature**

ICT is an encompassing phenomenon, as it applies to all aspect of human lives. It is a term that refers to the various technologies that are used in the creation, acquisition, storage, dissemination, retrieval, manipulation and transmission of information (Zulu, 2008). Nwagwu, (2006) stated that the rapid rate at which ICT have evolved since the mid-20th century, the convergence and pervasiveness of ICT, give them a strong role in development and globalization. This is affirmed by Sierra, (2006) when she stated that ICT has a critical role to play in development efforts around the world, particularly in developing countries (such as Nigeria). Almerich, Suárez-Rodríguez, Belloch and Bo (2011) opined that

the introduction of the ICT in the last decade has brought about many changes in education, and has had a huge impact on the educational system (creation of infrastructure, teacher training, etc.).

Nonetheless, integrating these resources into educational practices is not obtaining the expected results despite the potential they amass (Almerich et al 2011 citing Ertmer & Ottenbreit-Leftwich, 2010; Hixon & Buckenmeyer, 2009). Given this situation, several countries are proposing new plans to incorporate ICT into education, such as the United States and the National Educational Technology Plan (2010), or Spain and the School 2.0 Plan (2009). When it comes to implementing these programmes, apart from supplying infrastructures, an essential part involves teachers and their training, which is a central theme of such programmes (Almerich et al 2011). Developing countries have begun taking concrete actions to integrate ICT not only into their economic policies and development agendas, but in the formulation of ICT policy towards effective educational development of the citizenry, as education is the bedrock for nation building. This is so, because access to information and ultimately, knowledge, is essential to societal development, and ICT are tools for effective and efficient information access, processing, storage and retrieval, management and dissemination in education (Ani & Edem, 2010).

Adeyeye and Iwelac (2005) defined policy as the vision, goals, principles and plans that guide the activities of government and organization or institutions. Policy makers in education are therefore responsible for developing a vision and strategy for educational development and mobilizing support and cooperation for implementing the vision and strategy from a wide range of constituencies (Mingat, Tan & Sosale, 2003). Given the mission statement “To use Information Technology (IT) for education”, it strongly emphasized the role of ICT as part of learning activities in schools. It is understood that the intention of the Nigerian government is that no aspect of the process of education or educating should be left out. The Federal Government of Nigeria, in the revised edition of the National Policy on Education (2008), recognizes the prominent role of ICT in the modern world, and has integrated ICT into education in Nigeria. To actualize this goal, the document states that government will provide basic infrastructure and training at the primary school. At the junior secondary school, computer education has been made a pre-vocational elective, and is a vocational elective at the senior secondary school. It is also the intention of government to provide necessary infrastructure and training for the integration of ICT in the secondary school system.

Hence in the work of Yusuf (2005) as cited by Adomi and Kpanghan (2010), ICTs have the potential to accelerate, enrich, and deepen skills, to motivate and engage students, to help relate school experience to work practices, create economic viability for tomorrow's workers, as well as strengthening teaching and helping schools change. Change is not to put away with the traditional form of education but to grow, develop and transform into the technological state of advancement that comes with ICT. Many schools understand this as seen from works of authors in the academic and exploit technology effectively and in context, but many are still attempting to deliver success in the context of education structured in a bygone age. It is known that via technology, much of knowledge is free and readily available. Learning facts from a particular text and demonstrating the ability to regurgitate those facts under controlled examination conditions doesn't deliver what is needed. Wagner (2008) describes seven survival skills deliverable by 21st century learning, which are:

1. Critical thinking and problem-solving
2. Collaboration across networks and leading by influence
3. Agility and adaptability
4. Initiative and entrepreneurialism
5. Effective oral and written communication
6. Accessing and analyzing information
7. Curiosity and imagination

These are all skills that are associated with proactive development and change and have clear links with how business and society have developed in recent years with ICT embedded throughout their operations. The importance of ICT to education as a sector is far greater than the consideration of ICT as a discrete knowledge based subject, and it should be seen as such. The Nigerian government in other to implement the stated policy had through, the Federal Ministry of Education launched an ICT-driven project know as School Net ([www.snnng.org](http://www.snnng.org)) (Federal Republic of Nigeria, 2006; Adomi 2005; Okebukola, 2004), which was intended to equip all schools in Nigeria with computers and communications technologies. In June 2003, at the African Summit of the World Economic Forum held in Durban, South Africa, the New Partnership for African Development (NEPAD) launched the e-Schools Initiative, intended to equip all African high schools with ICT equipment including computers, radio and television sets, phones and fax machines, communication equipment, scanners, digital cameras, and copiers, among other things.

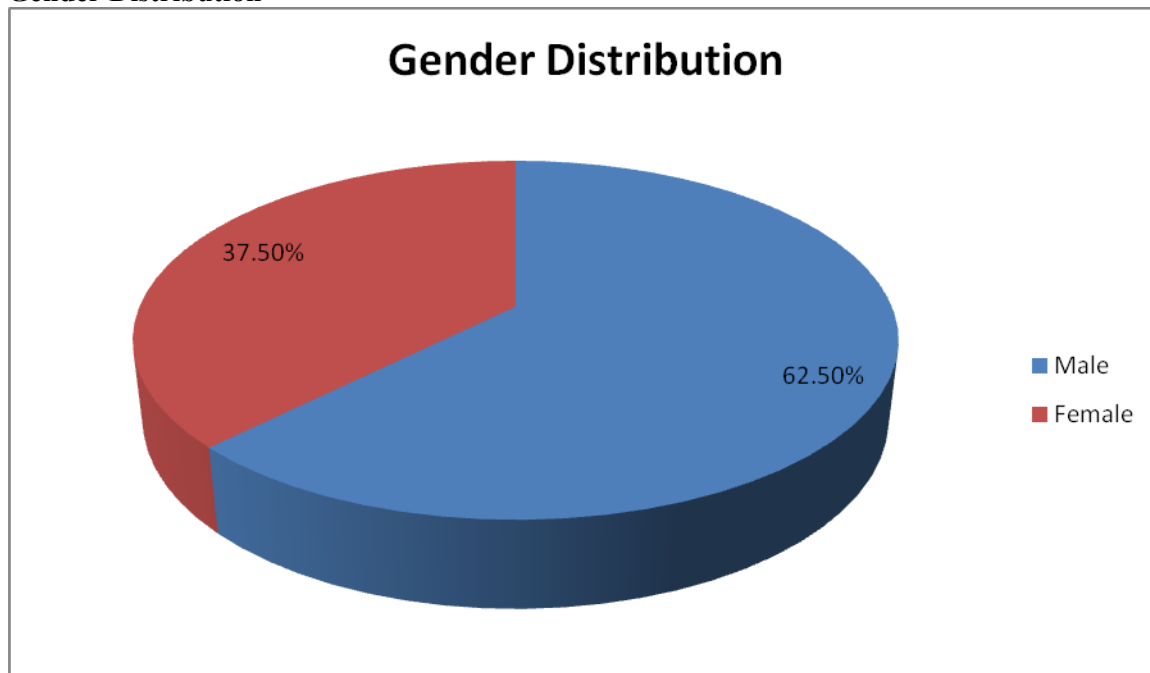
It is also meant to connect African students to the Internet. The NEPAD capacity-building initiative will be executed over a ten-year period, with the high school component being completed in the first five years. Three phases are envisaged, with fifteen to twenty countries in each phase. The phases are to be staggered, and an estimated 600,100 schools are expected to benefit (Adomi & Kpanghan 2010). The aim of the initiative is to impart ICT skills to young Africans in primary and secondary schools, and to harness ICT to improve, enrich, and expand education in African countries (Aginam, 2006).

### Methodology

In carrying out this study, the survey research method was used. The target population was the student and staff of eight selected private and public schools (four each) in Farin Gada, Jos North Local Government Area of Plateau State. The population was systematically stratified to a sample of three teachers and two students; a total of five respondents for each school, amounting to a total population of forty respondents for the study.

### Data Analysis

#### Gender Distribution



The gender distribution chart shows that the population has more male to female at 62.5% to 37.5%.

**Educational Qualification of Teachers**

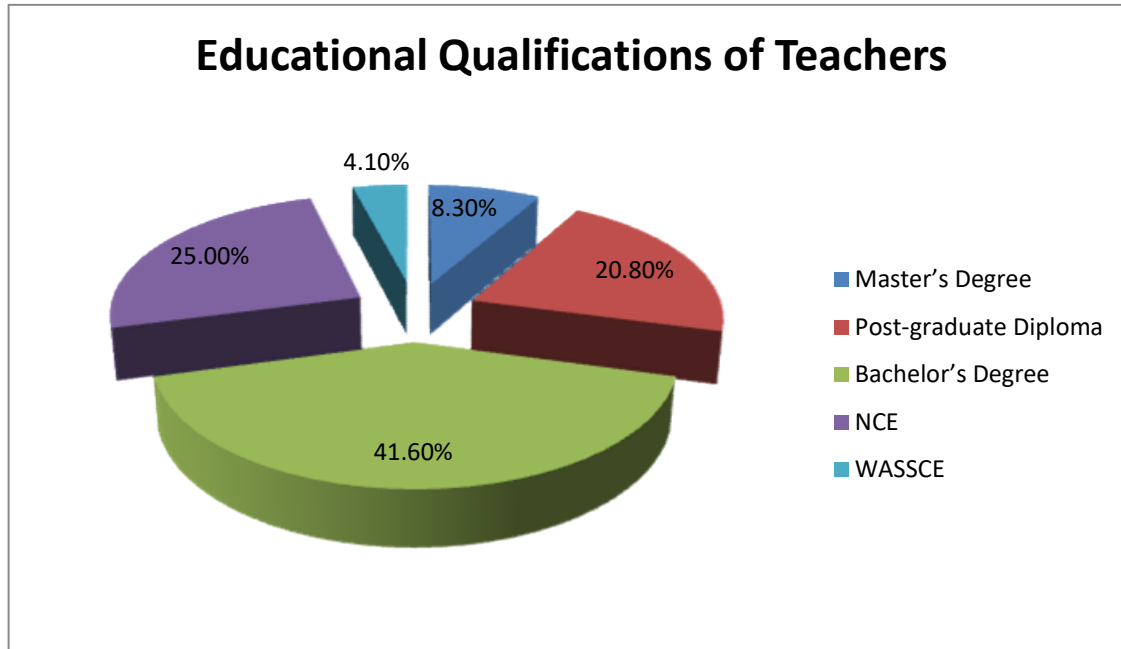


Chart 2 shows that majority of staff is qualified, with Bachelor degree being the highest at 41.6%, NCE at 25%, Postgraduate diploma at 20.8% and Master at 8.3%. This leaves WASSCE holders at 4.1% which was the least.

**Table 1: Basic Knowledge of ICT**

Respondents	Yes	%	No	%
Teachers	23	57.5	1	2.5
Students	16	40	-	-
	39	97.5	40	2.5

Respondent's Basic knowledge of ICT shows that majority at 39 (97.55) have basic knowledge of ICT while, 1 (2.5%) do not.

**Table 2: Availability of ICT in your school**

Respondents	Yes	%	No	%
Teachers	16	40	8	20
Students	11	27.5	5	12.5
	27	67.5	13	32.5

Table 2 shows that majority of the respondents, 27 (67.5%) agreed to the availability of ICT in their schools. While 13 (32.5%) responded to non-availability of ICT in their schools. This shows that ICT are available in majority of the schools.

**Table 3: Use of ICT for teaching and learning**

Respondents	Yes	%	No	%
Teachers	6	15	18	45



Students	5	12.5	11	27.5
	11	27.5	29	72.5

Respondents were inquired on the use of ICT for teaching and learning. Majority 29 (72.5) responded that they do not use ICT for teaching and Learning. While 11 (27.5%) use ICT for teaching and learning. This shows poor use of ICT by teachers and invariable the students in most of the schools

### Discussion of the Study

From the data above, the study shows that majority of the responds are male and minority is female. The academic qualifications of the teachers are high which falls within the expected educational standard. Majority of the respondents indicated that they have basic knowledge of ICT. The basic knowledge of ICT is not far from Agbetuyi and Oluwatayo (2012) view that, the development of information and communication technology into the Nigerian educational system has come to stay; hence the common knowledge of ICT in secondary schools. Most of the schools have ICT available, as indicated by majority of the respondents. This shows that, to a very large extent the goal of the federal government of Nigeria, in the Nigerian National Policy for Information Technology, to ensure the availability of ICT in schools is being adhered to. On the use of ICT for teaching and learning, a far less percentage of the respondent indicated that they use ICT for teaching and learning, this shows that, majority of the schools do not Use ICT for education which consist teaching and learning as stated in the Nigerian National Policy for Information Technology (2001).

### Conclusion and Recommendation

The research concludes that in relation to the statement and objective of the Nigerian National Policy for Information Technology to “Use ICT for Education” in schools in Farin Gada area of Jos North Local Government Area of Plateau State, there was knowledge and availability of ICT but poor use of ICT in teaching and learning. Thus poor use of ICT in teaching and learning can be attributed to the exhibitions of lack or limited knowledge and competency in ICT by students of secondary school level in the area. This is not encouraging as it negates the objective of the National Policy for Information Technology and does not meet the general purpose of ICT in education according to Gateway (2010), which states that the purpose of ICT in education is generally to familiarize students with the use and workings of computers, and related social and ethical issues. ICT has also enabled learning through multiple intelligence as ICT has introduced learning through simulation games; this enables active learning through all senses. In accord with Almerich et al 2011, this research recommends the involvement and training of teachers. In this way, teachers become the main actor in ICT integration. Without this actor, the incorporation of these technologies into the teaching-learning process would not take place because, in the end, ICT are used by teachers (Almerich et al 2011, citing; Ertmer, 2005; Cabero, 2004).

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