

Assessment of Information and Communication Technology (ICT) Usage for School Administration in Early Child Care Centre in Gwagwalada Area Councils, FCT.

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Abstract: This study assessed the effectiveness of ICT among school administrators and care-givers in the early child care education centres in Gwagwalada Area Council of FCT, Nigeria. The descriptive survey research design was adopted for the study. The population of the study comprised the entire care-givers and administrators in the early child care centres in Gwagwalada Area Council of FCT, Nigeria. Simple random sampling and proportionate stratified procedure was used to select twenty public early child education centres in Gwagwalada which was made up of 120 respondents. Questionnaire was used to collect data for the study. The research instrument used for data collection was a 10 structured questionnaire items rated on a 4-point Likert scale, with response options of Strongly Agree (SA); Agree (A); Disagree (D); and Strongly Disagree (SD). The responses of the respondents were presented in simple statistical table. The result collected and interpreted led to the conclusion that inadequate ICT facilities, unstable power supply, unstable internet services, high cost of internet services, poor implementation of ICT policies, poor ICT literacy of Care-giver, poor maintenance culture, corruption, high cost of ICT facilities and inadequate funding of ICT programme are the problems hindering effective use of ICT for school administration at the early child education centres in Gwagwalada area council of FCT, Nigeria.

Keywords: ICT, child, administration, care-givers

INTRODUCTION

The foundation of education of the child is the pre-schools education which forms an integral part of his or her early education which may be formal or informal, which is given in an educational institution to children aged 1 to 5+ prior to their entering the primary school (Ibhaze, 2016; Nakpodia, 2011). This educational level of the child provides for the physical, motor, health, nutritional, intellectual, aesthetic, emotional and social development of the pre-school child. If child education can provide these vital necessities which are fundamental in human life, it is not therefore unlikely to have an important and strong relationship with the pupils' performance at the primary school level and perhaps at the secondary and tertiary levels (Ibhaze, 2016, Nakpodia, 2003). Ibhaze, 2016 defined early childhood care education as the education offered to children who have not yet reached the statutory age of beginning primary school. He further maintained that it is a semi-formal education arrangement, usually outside home where by young children from about the age of 3 years are exposed through play like activities in a group setting through mental, social and physical learning suited to their developmental stages, until the mandatory age of government approved formal schooling. FRN (2004) refers to early childhood care education (pre-primary education) as an education given in an educational institution to children aged 3-5 plus prior to their enrollment in the primary school.

Ibhaze, (2016) outlines the objectives of early childhood education according to FRN (2013) are as follows:

Effect a smooth transition from home to school; Prepare the child for the primary level of education; Provide adequate care and supervision for the children while their parents are at work (on the farm, in the market or offices); Inculcate social norms; Inculcate in the child the spirit of inquiry and creativity through the exploration of nature, the environment, art, music and playing with toys and so on; Develop a sense of cooperation and team spirit; Learn good habits, especially good health habits; and Teach the rudiments of numbers, letters, colours, shapes, and forms and so on through play. The achievement of the stated objectives of early childhood education and care in Nigeria depends on the availability of materials and human resources. These materials resources include information technology communication resources and others.

Information communication technology have been viewed by different researchers to mean different thing in a similar conclusion. For Shobowale, (2019) Information and communication technology is a process of giving and getting information through the use of technologies like computers, internets, mobile phones and other communication networks. It includes all the technologies that help in disseminating and using information by individuals and institutions. Adelakin (2009), Information and Communication Technologies are those items which includes equipment known as (hardware) and programmes, known as (software) that allow people to access, organize, manipulate, retrieve, store, share and present information through electronic means. Obanya (2009), 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 programme activities geared towards the achievement of clearly defined goals. ICT and IT (Information Technology) are often used synonymously. However, the key difference is that IT is a subset of ICT which covers all forms of communication including telephone mobiles etc. while United Nation Educational Scientific and Cultural Organization (UNESCO, 2005) viewed 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 education system. World Bank (2007) asserted that Information Communication Technology (ICT) involves 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. According to Timiyu (2003), Information and Communication Technology (ICT) includes electronic technologies for creating, acquiring, storing, processing, communicating and using information. Timiyu classified ICT along two broad dimensions: the content-conduit facet and the service product dimension. Content-oriented ICT consist of the digital creation and publishing of information or content (e.g. database products, electronic books, and websites). Conduit- oriented ICT offers the guide or media for storing and transmitting of this information (e.g. telephone network). The product-oriented approach, on the other hand, embraces all physical objects or equipment used for information processing or transmissions like computers, cellular phones, and TV transmitters.

Olatunde-Aiyedun, Ogunode and Eyiolorunse-Aiyedun (2021) observed that the introduction of new information technologies into the educational process of the initial school allows you to use the cognitive and play needs of students in an accessible form for cognitive processes and the development of individual qualities. A modern multimedia lesson is built according to the same structure as a traditional one. Multimedia tools allow you to provide the implementation of the principle of visibility, which has a leading place in educational technologies of primary school. Application of multimedia presentations allows you to make lessons more interesting and dynamic, includes in the process of perception not only sight, but also hearing, emotions, imagination,

facilitates the process of memorizing the studied material by students, helps to "immerse" the student in the subject of study, to create the illusion of co-presence, empathy with the object under study, to promote the formation in volumetric and vivid performances. Thus, facilitating the process of perception and memorization of information with the help of bright images are the foundation of any modern presentation (Aiyedun, 2020; **Ojelade, Aregbesola, Ekele & Aiyedun, 2020**).

Information and communication technology (ICT) in this paper refers to technological devices like computers, internets, mobile phones and other communication networks designed for collection, dissemination, storing and management of data in an accurate and reliable manner.. ICT are specialized items like computers, internets, mobile phones and other communication networks, (hardware) and programmes, known as (software) that makes sending, receiving, retrieving, storing, sharing of data possible among user. Information communication technology is applicable to all the aspect of education. ICT is useful in the area of school administration and management, educational planning, supervision, inspection, quality assurance management, educational finance, school plant management, teachers' management, students' administration and research and development.

Information communication technology have provided opportunities for the school administrators, teachers and students to achieve their objectives. The school administrators is the head of the school and he/she is saddle with responsibilities of managing the human and materials resources of the school in the way by which the school programmes and goals will be realized. The school administrators use ICT for planning of school schedule and activities. The school administrators handles data collection, dissemination, compilation, computation and storage with ICT. He uses ICT for recording and keeping of information in the schools. ICT are used for security purposes, students' administration and teachers. ICT resources is an indispensable resources for school administrators. ICT resources is one of the crucial resources school administrators needs to carry out school programme.

The teacher is a professional individual that is trained to educate the students. The teacher is trained to employ different instructional aids to support the implementation of teaching programme. ICT resources is one of the instructional resources available for the teachers to adopt for teaching. ICT makes the work of the teachers simple and fast. Teacher as a professional individual that handles the function of imparting knowledge on the students. The job performance of the teachers of teachers is very vital to the realization of educational objectives. Teachers needs instructional materials to be able to carry our out his/her job effectively. The amount of human and materials resources available to the teachers helps to some extent to determine his/her performance in the classrooms. ICT is one of the instructional aid available for the teachers in this 21st century for the implementation of the school curriculum. The functions of the teachers which include, lesson note writing, lesson presentation in class, marking of notes, giving of assignments, assessing the achievement of the students, compilation of report sheet and setting of examination questions. ICT can make lesson note writing, lesson presentation in class, marking of notes, giving of assignments, assessing students' achievement, compilation of report sheet and setting of examination questions fast and simple. Hamrokulova (2021) observed that the use of IT in various lessons in primary school allows: To develop the ability of students to navigate the information flows of the surrounding world; To organize at the same time children with different abilities and skills; To master practical ways of working with information; To develop skills to exchange information using modern technical means; To intensify the cognitive activity of students; To conduct lessons at a high aesthetic level (music, animation); and To assess pupils using individual approach via multilevel assignments.

The use of IT in various lessons in primary school allows you to move from an explanatory illustrated way of teaching to an activity-based one, in which the child becomes active in the educational activity. This contributes to the conscious assimilation of students' knowledge. The computer allows the teacher to significantly expand the possibilities of presentation of different types of information. With a didactically correct approach, the computer activates the attention of students, enhances their motivation, it develops cognitive processes, thinking, attention, imagination and fantasy. New information technologies of teaching also have certain didactic opportunities such as: source of information; method to increase the degree of clarity; way to organize and direct perception; it fully meets the interests and needs of students; it creates an emotional attitude of students towards educational information, a positive motivation; and it is also additional material that leads out of bounds of compulsory level.

The introduction of information technology in the educational process is considered to be: Not as a goal, but as another way for students to comprehend the world; As a source of additional information on subjects; As a way of self-education for teachers and students; As an opportunity to implement a student-centered approach to learning. The use of new IT in various lessons gives advantages over the standard system of learning as in the following: huge amount of interest, motivation for educational activities increases; a differentiated approach is being implemented; each student becomes a subject of the learning process; for the same period of time, the volume of work performed is much larger; the process of control and assessment of knowledge is facilitated; and developing habits of learning activities (planning, reflection, self-control, mutual control (Hamrokulova 2021)). Mike (2021) cited Hamrokulova (2021) who observed that in elementary school, the child's reading activity changes from game for educational one. Using your computer's gaming capabilities in conjunction 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.

The students or learners are learning groups of people that needs instruction from an organized system. ICT resources is one of the learning aid the students' needs to improve their performance in the school. ICT makes students learn faster. It provides the students with flexible learning plans and distance learning. ICT enables learners to work and learn and provide more opportunities for interaction and personal development.

Purpose of the Study

The main objective of the study is to assess the effectiveness of ICT among school administrators and care-givers in the early child centres in Gwagwalada Area Council of FCT, Nigeria. Specifically, the study appraises:

- i. The extent of problems hindering the effective use of ICT in child care centres in Gwagwalada, FCT, Nigeria

Research Question

The following research question was raised to guide the study:

- To what extent does the problems hinder the effective use of ICT in child care centres in Gwagwalada, FCT, Nigeria

Review of Related Literature

Many investigations have been carried out on ICT usage in educational institutions by different researchers. At the higher institutions, Ogunode, Abubakar, Abashi, Ireogbu, Longdet (2021) looked at the challenges preventing academic planning officers from using ICT to carry out their

responsibilities at federal university Wukari, Nigeria and discovery inadequate ICT facilities, unstable power supply, high cost of ICT facilities, unstable electricity, poor computer literacy among academic planning officer, poor implementation of ICT policies, poor ICT capacity development of planner, lack of technical expertise and poor maintenance culture were identified as challenges preventing academic planning from using ICT effectively in the university. Furthermore, Shobowale, (2019) did a study determined the availability and utilization of ICT facilities for enhancing university campus security in South-south, Nigeria and the findings of the study revealed that ICT facilities are not adequately available for enhancing university campus security in South-South Nigeria. The study also revealed that there is no significant difference in the mean ratings of respondents from federal and state universities on the extent ICT facilities are utilized by security operatives for enhancing university campus security in South-South, Nigeria. The study concluded that the level of availability and utilization of ICT facilities for enhancing university campus security in South-South, Nigeria was not adequate for combating security challenges in the university system. Ogunode, Eyiolorunse-Aiyedun and Olatunde-Aiyedun (2021) that investigated challenges preventing educational administration and planning students from using ICT for learning. This result revealed that lack of personal laptop or computer system, unstable internet service, poor ICT literacy of the students, high cost of ICT facilities, unstable electricity and poor ICT infrastructural facilities in schools were the challenges preventing educational administration and planning students from using ICT for learning.

At the secondary school level, Oyeniran (2016) examined information communication technology (ICT) integration into school administration: A case study of secondary schools in Ekiti State, Nigeria and discovered that ICT resources were not adequately provided to the school administrators, and that the low usage of computers for their jobs was a result of lack of training in the use of computer and other ICT resources. It is concluded that the administrators of the studied schools in Ekiti South Senatorial District of Ekiti State, Nigeria have not really integrated ICT into their administrative jobs. Also, Agyo, Tanko, Adi, & Alagye, (2016) did a study that investigated the ICT facilities available, accessible and the Levels of teachers' ICT competence in teaching and learning of senior secondary schools in Wukari, Taraba State and found out that ICT facilities were less available and accessible for teaching and learning of senior secondary schools in Wukari local government area of Taraba State. Ogunode, Olatunde-Aiyedun and Akin-Ibidiran (2021) found out and stated that, in some Nigerian secondary, limited/poor information infrastructure, lack of adequate ICT facilities, poor ICT policy implementation, frequent electricity interruption, Inadequate ICT facilities in schools, limited school budget, high cost of ICT facilities/component, lack of ICT skills among teachers and school administrators poor management on the parts of school administrators and government, lack of maintenance culture and lack of interest in ICT application/use on the part of students. Salehi and Salehi (2012) investigation on teachers' perceptions of the challenges for using ICT in education among 30 high school English teacher and the study showed that insufficient technical supports at schools and little access to Internet and ICT were considered as the major barriers preventing teachers to integrate ICT into the curriculum and shortage of class time was another significant barrier discouraging teachers to use ICT into the classroom (Olatunde-Aiyedun, et al., 2021). Adejo (2015) highlighted some challenges militating against the application of ICT for teaching and learning thus: inadequate ICT tools such as computer for students and teachers; inadequate ICT facilities; poor computer literacy; high cost of ICT facilities; slow implementation of ICT policies; unstable power supply; lack of stable internet services; and poor maintenance culture among teachers and students. This also agrees with Ogunode, et al. (2021) that confirmed that poor electricity supply, high cost of internet services, high cost of ICT facilities, political instability, poor internet penetration, poor funding of ICT programme, and poor computer skills and knowledge as the challenges facing the usage of ICT for

teaching and learning in public school in Nigeria. From the above literature reviewed, it is obvious that challenges facing the usage of ICT at the early child schools is missing.

At the early child education, there is a research gap on the application of information communication technology for school administration and teaching programme implementation. Based on this research gap, this study seeks to assess problems hindering effectiveness of application ICT among school administrators and care-givers in the early child centres in Gwagwalada Area Council of FCT, Nigeria.

Methodology

This study employed descriptive research survey design. The population of the study consist of all care-givers and school administrators in the early child centres in Federal Capital Territory, Abuja. Simple random sampling and proportionate stratified procedure was used to select twenty public early child education centres in Gwagwalada area council which was made up of 120 respondents. Questionnaire was used to collect data for the study. The questionnaire was tagged: Assessment of Problems Hindering Effective use of ICT Questionnaire (APHEICTQ). The instrument used was divided into two sections – A and B. Section A sought information on the respondents (care-giver and school administrators) Socio-demographic variables which include Name of school, Local Government Area of Origin, Location, Gender, Years of experience and Qualification, while section B consist of 10 items designed in line with the challenges observed in the study. Four-point Likert scale was adopted for the study in this form, strongly agree (4), agree (3), disagree (2) and strongly disagree (1). Face content and construct validity of the instrument was done through employment of researchers who checked the research items. The observation and suggestion were included to prepare the final questionnaire. The factor analysis method was used to determine the construct validity. The data collected on the matrix range from 510 to 760 in all the items. The research instrument was ascertained to have construct validity. The researcher used Cronbach Alpha method to get the reliability of the research instrument. Fifty care-givers in another area council was selected and given the research questionnaire items. Data collected from the sampled fifty respondents were calculated using Cronbach Alpha. A coefficient of 0.912 was retained. The statistical measure enabled the researcher to verify the reliability coefficient of the study. The researcher employed the services of research assistant to help the researcher to distribute the questionnaire in all the selected early child centres in Gwagwalada area council of FCT. The research assistant was trained on how to administer the questionnaires in the various centres. Hundred percentage returned was recorded. Simple percentage was adopted for the study.

Data Analysis and Result

Research Question 1: To what extent are the problems hindering the effective use of ICT in child care centres in Gwagwalada, FCT, Nigeria.

Table 1: Problems hindering the effective use of ICT

S/N	ITEMS	AGREE	%	DISAGREE	%	DECISION
1	Inadequate ICT facilities	117	97.5	3	2.5	AGREE
2	Unstable power supply	112	93.4	8	6.6	AGREE
3	Unstable internet services	120	100	-	-	AGREE
4	High Cost of Internet services	105	87.5	15	12.5	AGREE
5	Poor implementation of ICT Policies	102	85	16	15	AGREE
6	Poor ICT literacy of Care-giver	97	80.8	23	19.2	AGREE
7	Poor maintenance culture	120	100	-	-	AGREE
8	Corruption(Diversion of ICT)	101	84.16	19	15.84	AGREE

9	High cost of ICT facilities	120	100	-	-	AGREE
10	Inadequate funding of ICT problem	120	100	-	-	AGREE

The result collected from table 1.1 revealed that 117 representing 97.5% were of the opinion that inadequate ICT facilities is a problem hindering effective use of ICT to carry out school administration while 3 representing 2.5% disagreed that inadequate ICT facilities is a problem hindering effective use of ICT to carry out school administration. On item two, 112 respondents constituting 93.4% agreed that unstable power supply is a major problem hindering effective use of ICT for delivering of administrative services in early child centres while 8 respondents constituting 6.6% ticked disagreed. Item three disclosed that 120 respondents representing 100 agreed that unstable internet is a major problem preventing effective use of ICT for school administration at the early child education centres. Item four on if high cost of internet services is a problem, 105 respondents representing 87.5% concurred that high cost of internet services is a problem hindering effective use of ICT for school administration while 15 respondent representing 12.5% had a contrary view. Item six result indicated that 97 respondents representing 80.8% agreed that poor ICT literacy of Care-giver is a challenge to effective use of ICT for school administration in the area of teaching at the early child centres while 23 respondents representing 19.2 disagreed.

On item seven, 120 respondents constituting 100% agreed that Poor maintenance culture is a major problem hindering effective use of ICT for delivering of administrative services in early child centre. Item eight result showed that 101 respondents constituting 84.16% were of the opinion that corruption (diversion of ICT) is a major problem hindering effective use of ICT for school administration at the early child centres while 19 respondents constituting 15.84% had a contrary opinion. Item nine on if high cost of ICT facilities is a problem revealed that 120 respondents agreed that high cost of ICT facilities is a major problem hindering effective use of ICT for school administration at the early child centres. For item ten, 120 respondents constituting 100% agreed that inadequate funding of ICT programme is a major problem hindering effective use of ICT for delivering of administrative services in early child centre.

Discussion of Findings

Result collected revealed that inadequate ICT facilities, unstable power supply, unstable internet services, high cost of internet services, poor implementation of ICT policies, poor ICT literacy of Care-giver, poor maintenance culture, corruption, high cost of ICT facilities and inadequate funding of ICT programme are the problems hindering effective use of ICT for school administration at the early child education centres. This result is in line with Adewale (2013) and Olatunde-Aiyedun and Ogunode (2021) that identified some challenges facing science and environmental education teachers to include: inadequate funding, high cost of ICT, poor computer literacy of teacher, shortage of ICT teachers, unstable electricity and weak internet services as the challenges militating against the use of ICT in public secondary schools.

The result of the findings also agree with the study of Ojo (2016); and Ogunode and Aiyedun (2020) that poor maintenance culture, poor implementation of ICT policies, poor electricity supply, unstable internet services and high cost of ICT are the factors preventing the use of ICT for teaching and learning.

Conclusion, Implication of the Study

The objective of this research was to assess the problems hindering effective use of ICT for school administration at the early child centres in Gwagwalada area council of FCT, Nigeria. The result collected and interpreted led to the conclusion that inadequate ICT facilities, unstable power supply, unstable internet services, high cost of internet services, poor implementation of ICT policies, poor

ICT literacy of Care-giver, poor maintenance culture, corruption, high cost of ICT facilities and inadequate funding of ICT programme are the problems hindering effective use of ICT for school administration at the early child education centres in Gwagwalada area council of FCT, Nigeria.

Recommendations

Based on these findings, the study hereby recommends the following:

- i. Government should increase the funding of the early child education programme.
- ii. Government should provide adequate ICT facilities in all the early child centres.
- iii. Government should ensure stable supply of electricity and internet services through improving the capacity of the providers in the country.
- iv. Care-givers and Administrators should be trained and retrained on ICT education.
- v. Government should subsidize the cost of the ICT facilities for early child education centres and ICT facilities supplied to centres should be tracked to prevent diversion.

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