

INFORMATION COMMUNICATION TECHNOLOGY (ICT) AND SECONDARY SCHOOL ADMINISTRATIVE EFFECTIVENESS IN JOS NORTH LOCAL GOVERNMENT AREA OF PLATEAU STATE, NIGERIA

NNAMDI SUNDAY EMMANUEL (PhD)

nnamdisunday31@gmail.com

+2347031127420 / +2349014008507

&

BUSA, ABDUL'AZIZ INUSA

Department of Educational Foundations

Faculty of Education

Federal University Dutsin-Ma

Katsina State, Nigeria

abdulazizbusa@gmail.com

+2348067574620

Abstract

This study is to examine Information Communication Technology (ICT) and Secondary School Administration Effectiveness in Jos North Local Government Area of Plateau State. The Population of the respondents was 320 which comprises of the 22 principals, and 298 teachers of public secondary schools in Jos North Local Government area, and the same number of respondents was used as the sample size because the population was small. The researchers employed descriptive research design. A four-Likert self-designed questionnaire of Information Communication Technology and Secondary School Administration Effectiveness (ICTSSE) was used to elucidate information from the respondents. The data collected was analyzed on the basis of descriptive statistics using percentages, mean and standard deviation. Criterion mean of 2.50 was set, while the null hypothesis was tested using Chi-square at 0.05 level of significance. Findings of the study revealed that, ICT has a great influence on the administration effectiveness of students especially at the secondary school level. It was recommended amongst others that the government, administrators, teachers, should give priority to the utilization of ICT for easy administration of the schools. Stake holders, NGOs, and the PTA should encourage the use of ICT with internet connection in schools, and both the school administrators and the ministries of education should encourage the use of ICT in the administration of schools to improve effectiveness amongst the school administrators.

Keywords: ICT, administration effectiveness, NGOs, PTA.

Introduction

Information and Communication Technology (ICT) is a phenomenon that has come to rule the world in different ways due to its importance to different works of life, and involves various areas of specialization. This importance of ICT to individuals, companies, schools, etc., cannot be overemphasized because of its usage in every facets of life. ICT is gradually becoming an indispensable tool in the day to day endeavors of professionals. According to Ramson (2012) it is an umbrella term that includes any communication device on application,

encompassing radio, television, cellular phones, computer network hard and software, satellite system as well as servers and applications associated with them. Information and Communication Technology (ICT) in the world today has become the fastest growing industry. As a result of its importance, in all other industries in today's works' environment seek solutions to many of their problems from ICT in order to improve their efficiency and effectiveness.

Secondary school students' administration is an integral part of school administration, which involves the use of computer for admission process to learning activities; performance analysis, checking of admission, checking of results, payment of school fees and processing of results. Staff administration includes recruitment and work allotment in the school; their attendance, leave management and performance appraisals. Staff administration through ICT helps in the processing of voluminous records in a quick, meticulous, and impeccable manner, thereby making data processing and retrieval easier. Statutory school records especially in the secondary schools include scheme of work, staff record register, log book, cash book, inventory book, admission register, continuous assessment records and dossier of the staff.

The use of ICT in keeping these records is very essential and enhances secondary school administration effectiveness. Oliver (2002) assert that the use of ICT in secondary education enhances student centered teaching and learning within secondary schools. One of the major teaching challenges has always been helping students to bridge the gap between knowledge and real life practice. The National Policy on Education FRN (2014), the policy on ICT in education launched in 2010 present a holistic and broad vision for its integration in the education sector in Nigeria. This policy moved beyond a basic technology literacy approach, it also focuses on leveraging technology to transform the role of the teacher and the learner in the classroom.

Secondary school education has become more complex due to the increase in the number of students' enrolment as well as the number of programmes. Due to this complexity, School administrators are faced with so many challenges that may arise in cause of administration. Over the years, the administrative work is print-based. Various documents are kept in the form of records. These records provide information on the past, present, and anticipated future activities of the school including relevant information from the external environment, which aid decision-making. The information kept are in the areas of instructional programmes and activities, staff and students, personnel services, physical facilities, finance, and interaction with stakeholders outside the school. The administrators cannot perform their duties without accurate, timely, sufficient and relevant information.

In an effort to address the challenges faced by secondary school administrators in Jos-North LGA, the governor of Plateau State in 2016 mandated all primary and secondary schools staff including the principals and head teachers to undertake a three months computer programme to enable them meet with the 21st century ICT literacy. But to no avail, because the training was concluded, but computer gadgets were neither given to the participants nor the schools, which made the training practically ineffective. The non-attendance to the problems of ICT in secondary schools' administration increased illiteracy among the teachers, students and other supporting staff. This also leads to students' being unable to use ICT facilities as they are required by external examiners, for storage and retrieval of large documents. This also

continuous to trail the administrators which invariably slow down the school administrative effectiveness. Hence, this study examines ICT and secondary school administration effectiveness in Jos North Local Government, in order to specifically find out the extent to which secondary school administration apply the use of ICT in keeping the students' records; the level of provision of ICT gadgets in secondary school; the utility of ICT in secondary schools administration and the extent to which secondary school administrations apply ICT on the management of staff in Secondary Schools of Jos-North LGA.

Brief Review of Related literature

ICT is a concept which spans to various works of life such as education, health care, securities etc. Gusen (2009) described ICT as a tool that is creating new global economy and challenging school curriculum. ICT is a challenge to global economy and school curriculum, especially in Nigeria and other developing countries. It is beginning to gain acceptance and thus it is a new concept that requires enlightening people, and also bearing in mind the cost implications and changes that may arise during implementation. These challenges in turned benefit the students and the teachers in secondary schools. Similarly, Ibadin (2008) defined ICT as a diverse set of technological tools and resources used to create, disseminate, store and manage information. These technologies are computers, internet, broadcasting facilities and telephones.

The deficiencies associated with the storage, preservation and presentation of large volume of information in paper form made managerial processes very cumbersome. Oboegbulem and Ogbonnaya (2010) investigated the role of ICT in school administration and the extent of its application by secondary school principals in administration in the south eastern states, comprising Abia, Anambra, Ebonvi, Enugu, and Imo states with ICT and Internet facilities. The findings showed among others that the use of ICT in school administration was a necessity and worthwhile venture especially in this era of globalization, but the extent of their application in secondary schools was very slow as school administrators were incompetent in handling ICT facilities for effective administration of schools. Tambari and Ngor (2016) investigated effectiveness of ICT in teaching and learning in Public Senior Secondary Schools and found that ICT tools were not utilized in the schools. Based on their findings, it was recommended among others that; the government of Nigeria should embark on a massive computer literacy training programme nationwide, particularly for the teachers and learners at all level of education. Emereuwah (2017) examines the use of ICT in teaching and learning of social studies in private secondary schools and the result showed that, there were inadequate ICT resources and shortage of manpower. Nwuba (2018) investigates competencies in the use of ICT among basic science students and teachers in Jos-North L.G.A. and the result revealed that 97% of the students were not competent in computer operation; 89% were not competent in word processing; 75% were not competent in Microsoft Excel; 78% were not competent in power point; 73% were not competent in World Wide Web; 95% were competent in using GSM to communicate and 68% were not competent in using e-library for assignment.

The role of ICT in the entire society is very enormous. That is why Adebayo (2010) posits that the importance of ICT is indispensable in the part of contemporary of society which allows access to information anywhere in the world; promote network that is not restricted by boundaries, language and culture, enhance community empowerment and knowledge

spreading. ICT has come to stay and thus should be present in all institutions of learning no matter the level.

To be among the great committee of nations, Nigeria must endeavour to change her teaching method in social studies from the traditional way of talking and chalking and that of carrying books around. In his view, Aina (2012) stated that method of teaching has gone beyond the traditional method of talking and using chalk. To this end it has become pertinent that teachers in social studies in particular and in general must incorporate themselves with the global trend in technology. It should be noted therefore that ICT in today's trend of things has become essential ingredients of information dissemination in education and should be taking as such.

Purpose of the Study

The purpose of this study is to examine the role of information and communication technology and secondary school administration effectiveness in Jos North Local Government Area of Plateau State. Specifically, it examined if the secondary school administration apply the use of ICT in keeping the students records, the level of provision of ICT facilities in secondary school, and the level of ICT usage in secondary school administration.

Research Questions

The researchers use four research questions for the study. These are:

1. To what extent does the secondary school administration use ICT facilities in keeping school records?
2. What is the level of provisions of ICT facilities in secondary schools in Jos North LGA?
3. What is the level of ICT usage by the secondary school students in Jos North LGA?
4. To what extent does the secondary school administration ICT facilities in the management of Staff and students

Research Hypothesis

The researchers used one hypothesis to analyze this study using Person Chi-square like hood Ratio
at P-value of 0.000

H₀₁: There is no significant relationship between the use of ICT facilities and secondary school administration effectiveness in school.

Methodology

The study adopted descriptive survey research design. The population was 320. This population covers all the Public Senior Secondary School's Principals and the Teachers in Jos-North Local Government Area of Plateau State and made up of 22 Public secondary schools with 22 principals and 298 teachers making the total of 320 respondents. Because of the size of the population, 320 was still used as the sample. ICT and Secondary School Administration Effectiveness Questionnaire (ICTSSAEQ) was developed by the researchers and 25 question items to address the four research questions and one research hypothesis. The instrument was vetted and a 4-Likert Scale ranging from strongly agreed SA (4), agreed A (3), disagreed D (2) and strongly disagreed SD (1) was used to answer the question items. The measurement of the reliability of the instrument was established using the peer review correlation

reliability index which indicated Cronbach's Alpha calculated at 0.81. The reliability of the instrument was established through test re-test method. The data obtained from the study was analyzed using percentages, and mean. The results as presented below.

Results

The data collected were subjected to Statistical Package for Social Sciences (SPSS), and was analyzed using descriptive statistics that is, the mean and standard deviation to answer the research questions formulated in the study. The criteria mean (2.50) established against scores of each variable were judged, while Chi square was used to test the null hypothesis at 0.05 level of significant.

RQ1: To what extent do the secondary school administration use ICT facilities in keeping school records?

	Statement						Decision
		SA	A	D	SD	X	
1.	The use of ICT saves space hitherto for keeping hard copy files	149	107	14	-	3.53	Agree
2.	Uses ICT reduce the time spent in retrieving student's records in my school	147	83	23	17	3.33	Agree
3.	Use of ICT prevents loss of student's records	132	81	20	37	3.13	Agree
4.	All students' records are kept in the ICT	34	57	54	125	2.22	Disagree
5.	Information about students is accessed on line, eliminating the use of heap of files.	22	84	42	122	1.11	Disagree
Cumulative Mean= 2.66							

Criterion Mean = 2.50;

Source: Researchers' Field Work, 2019

Table 1: Extent of Administrators Application of ICT in Students' Records Keeping

On the extent of secondary school administration in applying ICT facilities in students' records keeping, from Table 1 above, items 1,2 and3 reveals that the cumulative mean score is above the criterion mean of 2.50, indicating that the respondents agreed that secondary school administrators apply ICT in keeping the records of students in secondary schools of Jos North LGA of Plateau State, while items 4 and 5 disagreed with the affirmation. The finding is in agreement with Edogor (2016) who among other findings reported that ICT and its facilities are very important in any form of administration as it is the hallmark for proper record keeping.

Results

RQ 2: What is the level of provisions of ICT facilities in secondary schools in Jos North LGA?

	Statement					$\bar{X}$	Decision
		SA	A	D	SD		
6.	There are functional internet facilities in my schools for browsing	38	60	70	102	2.22	Disagree
7.	There are enough ICT materials to teach the students in my school	125	95	30	20	3.16	Agree
8.	There are enough ICT gadgets for records keeping in my school	140	90	20	20	3.30	Agree
9.	My school is connected with internet facilities	56	73	44	97	2.33	Disagree
10.	My school make provision for ICT lesson on the time table	10	92	18	150	0.77	Disagree
Cumulative Mean= 2.38							

Criterion Mean = 2.50;

Source: Researchers' Field Work, 2019

Table 2: Level of Provision of ICT in Jos North LGA Secondary Schools

On the level of provision of ICT in Jos North LGA Secondary Schools, result from Table 2 shows that the cumulative mean scores is above the criterion mean, indicating that the respondents are in agreement with the findings on the levels of provision of ICT in Jos-North secondary schools. This agreement is in items 7 and 8, while items 6, 9 and 10 disagreed with research question, but the agreement was in-line with the findings corroborate with Bao (2016) who posited that ICT facilities are very important factors to be considered because it influence the administrative effectiveness of any organizations.

RQ 3: What is the level of ICT usage by the secondary school students in Jos North LGA?

Statement	Rating				$\bar{X}$	Decision
	SA	A	D	SD		
11. In our school, the administration applies ICT in student's administration process	173	91	4	2	3.50	Agree
12. Teachers apply ICT in processing student's assessments test	172	83	14	1	3.48	Agree
13. ICT is applied to monitor the daily activities of the school	110	71	48	41	3.11	Agree
14. Teachers are reminded about their duties on phone	144	110	14	2	3.46	Agree
15. Handset is used to contact the security agencies during emergency	156	86	20	8	3.40	Agree
Cumulative Mean= 3.39						

Criterion Mean = 2.50;

Source: Researchers' Field Work, 2019

Table 3 Extent of Utilizing ICT in Jos North Secondary Schools Administration

Table 3 shows the extent of utilization of ICT and its facilities in Jos-North secondary schools administration. The cumulative means of all the five items in the table above exceeded the criterion mean scores of 2.50. This shows that there was agreement among the respondents that to a large extent, there is the utilization of ICT and its facilities in Jos-North secondary schools by the school administrators. This is in line with Edogor and Emah (2009) who among other findings posited that the use of ICT influences effectiveness of administration.

RQ 4: What extent does the secondary school administration ICT facilities in the management of Staff and students?

Statement	Rating				$\bar{X}$	Decision
	SA	A	D	SD		
16. ICT help reduce bureaucracy in our school administration	135	103	18	14	3.39	Agree
17. ICTs make decision making easier and faster	176	75	10	9	3.44	Agree
18. I CT enhances the management of financial records in schools	143	104	13	11	3.30	Agree
19. School administrators use ICT to communicate with parents and teachers	87	87	74	22	2.98	Agree
20. Using ICT in my school enhances effective's communication and sharing knowledge	104	95	53	18	3.10	Agree

Cumulative Mean= 3.24

Criterion Mean = 2.50;

Source: Researchers' Field Work, 2019

Table 4: What extent does the secondary school administration ICT facilities in the management of Staff and students?

Table 4 reveals that school administrators apply ICT on the management of staff and students for influence administrative effectiveness of secondary schools. This is shown on the table above, where the cumulative mean is above the criterion Mean 2.50. All the five items had their mean scores (3.39, 3.44, 3.30, 2.98, and 3.10) above the criterion mean of 2.50, indicating that there was agreement among the respondents on the statement with research question 4. They also believe that, school administrators use one form of ICT or the other to communicate with both the teachers, parents and students which also enhance effective communication.

HO1: There is no significant relationship between the use of ICT facilities and secondary school administration effectiveness in school.

Table 5: ICT Gadgets and Administrative Effectiveness in Jos North Secondary Schools

Variables		Value	Df	P value
ICT Gadgets	Person Chi-square likelihood Ratio	591.97	176	.000
Administrative effectiveness	Linear by linear Association	47.10	1	.000
No. of valid cases		270		

Source: Researchers' Field Work, 2019

The result of the null hypothesis on Table 4 reveals that there is a significant relationship between ICT gadgets and Administrative Effectiveness in Secondary Schools of Jos-North Local Government Area of Plateau State. The result yielded $X^2(1,176) = 591.97$, $P < 0.05$, since the P value of 0.000 is less than 0.05 level of significance, the null hypothesis was rejected. It was concluded that there is a significant relationship existing between ICT gadgets and administrative effectiveness in Secondary Schools in Jos North LGA.

Conclusion

Based on the findings, the study concluded that; most schools' administration do not apply ICT in students' records keeping, but there are indications that there are enough ICT materials and gadgets to teach the students and keep their records. The schools make provision for the ICT lesson on their time tables. But there are no functional internet connections and the schools are not connected with internet facilities. The administrators apply the use of ICT in the students' administration process while the teachers too, apply ICT in processing students assessments test, ICT is also applied to monitor the daily activities of the schools at the same time teachers are being reminded on their duties through various means of communication in almost all the schools. Result also reveals that ICT help to reduce bureaucracy in the schools administration and makes decision making easier. The respondents also believed that school administrators use one form of ICT or the other to communicate with both the teachers and their parents and it also enhances effective administration. The study recommended that government, administrators, should give priority in the utilization of ICT for easy administration of their schools; stake holders such as government, NGOs, and the PTA should encourage the use of ICT with internet connection in schools, and both the governments, school administrators and the ministry of educations should encourage the use of ICT in the administration of schools so that effectiveness will be improved amongst the school administrators.

Recommendations

Based on the findings of this study, the researchers recommend as follows:

1. The government should provide adequate ICT teachers and facilitators in schools;
2. There should be adequate and equipped ICT laboratories with its facilities;
3. ICT teaching should be more practical oriented;
4. Parents should make provisions for more training of their children at home and even in school;
5. NGOs should also come to the aid of the schools by providing some of the materials and facilities; and
6. Government should make ICT compulsory in all schools.

References

- Adebayo, S.A. (2010). Teaching/learning physics in Nigerian secondary schools: The curriculum transformation, issues, problems and prospect. *International Journal of Educational Research and Technology* 1 (1), 99-111.
- Aina, J. K. &Adedo, G. A. (2010). Correlation between students' continuous assessment and students' performance in Physics. *Journal of Education and Practice*. 4(6), 6-9.
- Bao, C. (2016). The roles of principals' leadership style in the implementation of ICT policy. *British Journal of Educational Technology*, 42(2) 311–326.
- Edogor, H.A., &Emah, E.I. (2016). Use of ICT and communication effectiveness among Secondary school administrators. *Journal of Education and Sociology*, 2(1) 234-237.
- Emah, M. (2011). Framing new communicative technologies in the Arab world. *Journal of Arab & Muslim Media Research*, 4(1) 3-22.
- Emereuwah, J.U. (2017). Use of ICT in the private universities of Bangladesh *International Journal of Educational Administration*, 1(1)77 – 82.
- Gusen, J. (2009). Information technology in Nigeria: A challenge for the classroom teachers. *A paper presented at Maiden conference, at FCE Pankshin*.
- Ibadin, V.O. (2008). Computer in educational planning and administration. *International Journal for Educational Studies*, 4(2) 201-213.
- Nwuba, Y. (2018). Factors affecting information and communication technologies (ICTs) use by librarians in Southwestern Nigeria. *Library Philosophy and Practice*, 1(1) 342-353.
- Oboegbulem, A.I., &Ogbonnaya, N.O. (2008). *Challenges of ICT in the management of universities*. In B.G. Nworgu (Ed), *Education in the Information Age: Global Challenges and Enhancement Strategies*. Proceedings of the First International Conference of the Faculty of Education, University of Nigeria Nsukka.
- Ramson, F.A. (2012). E-learning and distance education in Nigeria. *The Turkish Online Journal of Educational Technology*, 7(4), 61-70.
- Tambari, S., &Ngor, L. C. (2016). Secondary school socio-cultural context influencing ICT integration: A case study approach. *Australasian Journal of Educational Technology*, 26(6) 741–763.