

Comparative Analysis of Computer Practical Lesson in Private and Public Senior Secondary Schools in Jimeta Metropolis, Yola NorthAdamawa State

ADAMU Mohammed¹

Department of Physical Sciences Education,
School of Technology and Science Education

Modibbo Adama University of Science and Technology, Yola

SALIHU Fatima Adamu²

Department of Medical Laboratory Technology
Maryam Abacha American University Niger
Niger Republic.

Abstract:- This study investigated the “Comparative analysis of computer practical lesson in private and public senior secondary schools in jimeta metropolis, yola north Adamawa state”. Three objectives, research questions and hypothesis were formulated. This study employs descriptive survey research design. The target population of this study will comprise of all senior secondary schools computer teachers’ and students’ drawn from ten (10) selected schools in jimeta metropolis. Simple random sampling technique is used to select sample population from the 10 senior secondary schools under study. The target population will comprise of two teachers and eight students randomly selected from each schools covered by the study. The research instrument for this study will be closed ended structured questionnaire using four point likert scales. The validity of the instrument was proved by passing it the experts in the field to ensure that the instrument measures the stated objectives of the research work. The reliability of the instrument was obtained using Cronbach’s Alpha method. The researcher collect an introductory letter which is used to seek permission at the sampled schools to allow the researcher have access to the data needed, with the help of research assistants. Research question one, two and three was analyze using Percentage ,mean, standard deviation each While the null hypothesis was tested using Analysis of variance (ANOVA). On the basis of finding of the study it was concluded that, there is no significant different between the number of computer lesson conducted, use of instructional materials and level of qualified computer teachers between the private and government secondary school in the study area. Recommendations were made that Government and school authorities should make adequate annual budgetary provisions for computer facilities to allow for periodic replacement, continuity and availability of school facilities.

Keywords:- Computer Practical Lesson, Public and Private Secondary Schools.

I. INTRODUCTION

With the growing spate of advancement in technology especially in the world of computers, the need to employ e-education cannot be over emphasized. The introduction of e-learning and e-teaching is fast becoming pronounced in Africa, especially in Nigeria and South Africa. A number of research work has shown the positive impact of the use of electronic gadgets, computers and internet in aiding the teaching-learning process. In fact, the 21st century child is more interested and motivated in learning when it comes to e-education. Children nowadays easily fondle with laptops, iPods’, tablets, iPhones’ and android without reading the manual or being tutored. It is also a known fact that the larger percentages of computer/internet users globally are children and youths under 30years. The ability to use effectively and use information communication technology is the basic requirement for training and development in the communication and information era in which ICT is improving by rapidly. However, the capacity and capability to use and application of information must bring the availability of computer knowledge and easy communication in the world (Aduwa-Ogiegbaen and Iyamu, 2005).

It is of benefit through success of computer programme in schools, even at a most basic level, to find, emerged and use communication technology must be basically in computer literacy, which involves the ability to maintain the new knowledge of modern and innovative technology to effectively perform a variety of works involving the information, processing, operating and storage.

The meaning of computer practical’s varies most of the time. It can be defined as the ability to figure out necessary applications and the use of hardware component with their advantages (Kubiatko, 2007). The ability to input and process data by the machine or computer device user means commanding computer and what the computer will eventually understand (Bada et al., 2009). Oluwatayo (2012) defines computer practical in terms of the capacity of knowledge and skills acquisition by students’ to process information and access data in to a storage using a computer system.

For teachers, should be intellectual in term of knowledge of the computer basics in other in impact the required knowledge effectively to students' and makes teaching and learning process enjoyable. It has become very interesting to be competitive and qualitative in nowadays business and markets in general. It is always increasing an individual intellectual capability through the process of knowledge capability to use a computer.

The developmental realization of the actual advantages of computer practical amongst students and teachers in schools is vital and is also necessary through driving efforts to show the benefits' of computer knowledge to the society at large. computer knowledge is important to the body knowledge in senior secondary school students and learning environment, this will increase the willing knowledge of computer access by the students' to extract the required educational output. Within the content of the Nigerian educational output, educational system and schools authorities, the official efforts started since 19 century to about computer revolution towards integrating computer education, practical's and availability of computer facilities in the school system date back to the 1980s.

The general developmental aims through which computer practical's lessons can be achieve must be with computer competent teachers and regular computer practical lessons in secondary schools, according to Jegede and Owolabi (2003), are focused on ensuring that: the advantage of information and computer technology in schools; and schools are well provide with computer school facilities with the knowledge and required skills to use and computer programme, develop computer programming language to perceive in operational aspect of computer. The primary aim and objective of finding remedy in senior secondary school students and computer are reasonably the assurance of basic computer knowledge. The Nigerian government has to ensure adequate computer instructional materials in senior secondary schools in other to upgrade educational system.

Cawthera (2005) had opined many of Nigerian schools lack computer facilities mostly and that is the main problem to the development of computer knowledge acquisition although some places in the world have the required facilities of computer in their schools with respect to differences components in computer education integration, Jegede and Owolabi (2003) opined that in acquiring computer knowledge in most African countries more especially in Nigeria was under developing and still lacking at most of the senior secondary schools. The computer facilities are scarce for practical lessons in schools, but it is available in some private senior secondary which constitute more than 80% of Nigerian schools are of computer scarcity. Therefore to compare the computer practical lessons among private and public secondary school students in terms of computer practical effectiveness especially the performance you will find the differences between the two is clear, given differences in ownership structure and investment priorities.

➤ *Statement of the Problem*

The teaching of Computer practical lessons is not spared from drawbacks which inhibit the achievement of set goals. The factors such as unavailability of science teachers in schools, lack of materials, lack of funds and time have constrained the teaching of Computer practical lessons. Consequently, many students fail to perform well in Computer because of inadequacy of instructional materials such as computers, I.C.T centre, and shortage of computer textbooks. Lack of allocated practical lesson time and irregularity of carrying out practical Computer lessons by teachers affect students' performance and understanding. The situation as to whether practical lessons are conducted regularly as part of learning process in teaching of computer today is unknown. Hence, this research intends to compare practical computer lessons carried in public and private secondary schools.

II. OBJECTIVES OF THE STUDY

The purpose of this study is to compare practical computer lessons in some selected private and public senior secondary schools in Jimeta, Yola metropolis. The specific objectives of this study are to determine:

- Compare practical computer lessons conducted in public and private senior secondary schools under study
- Compare the availability of equipment for computer practical in the schools under study.
- Compare the adequacy of computer practical instructors in the schools under study.

A. *Research Questions*

- How many times computer practical computer lessons are conducted in public and private senior secondary schools?
- How available are instructional materials in public and private senior secondary schools under study.
- How adequate are the instructors of practical computer in public and private senior secondary schools?

B. *Research Hypotheses*

The following null hypotheses are formulated to be tested at **0.05** level of significance

- There is no any significant difference between practical computer lessons conducted in public and private senior secondary schools.
- There is no any significant difference between public and private senior secondary school in the use of instructional materials
- There is no any significant difference in the adequacy of school Instructors for practical computer lessons in public and private senior secondary

C. *Basic Assumptions*

The study has the following assumptions:

- That senior secondary school in jimeta conduct practical computer lessons

- That senior secondary school in jimeta have adequate equipment for practical computer lessons
- That senior secondary school in jimeta have trained instructors in teaching practical computer lessons

III. METHODOLOGY

The study adopts survey research design to compare computer practical lesson held in five public and five private senior secondary schools in jimeta metropolis using closed ended structured questionnaire. The target population of this study comprise of all senior secondary schools computer teachers’ and students’ drawn from ten (10) selected schools in jimeta metropolis.

Simple random sampling technique is used to select sample population from the 10 senior secondary schools under study. The target population will comprise of two teachers and eight students randomly selected from each schools covered by the study. The research instrument for this study will be closed ended structured questionnaire using four point likert scales. The validity of the instrument was proved by passing it the experts in the field to ensure that the instrument measures the stated objectives of the research work. The reliability of the instrument was obtained using Cronbach’s Alpha method. The researcher collect an introductory letter which is used to seek permission at the sampled schools to allow the researcher have access to the data needed, with the help of research assistants. Research question one, two and three was analyze using Percentage ,mean, standard deviation each While the null hypothesis was tested using Analysis of variance (ANOVA).

IV. FINDINGS

Result and discussion

SCHOOL	Frequency	Percentage
GDSS DOUBELI	10	10
GDSS CAPITAL	10	10
GDSS LUGGERRE	10	10
GDSS BEKAJI	10	10
GDSS KAREWA	10	10
FAAN STAFF ACADEMY	10	10
HAYATU. IYAWA COLLEGE	10	10
KAY ACADEMY	10	10
WISDOM ACADEMY	10	10
CONEL ISA ACADEMY	10	10
Total	100	100

Table 1:- Number of School Field Survey, 2019

The table above show the various school that are captured in the study that include five private and government school each where a total number of ten

respondent where captured from every school summing up a total of 100 respondent in all.

ITEM	Frequency	Percentage
STUDENT	87	87
TEACHER	13	13
Total	100	100

Table 2:- Rank of the Respondent Field survey, 2019

The table show the various categories and ranking of the people that are captured in the survey, the result shows 13% of the population are teachers that are teaching in the schools included in the study, while 87% student that are in the school captured in the study, the analysis result show that majority of the people in the study are student in the various school.

ITEM	Frequency	Percent
MALE	48	48
FEMALE	52	52
Total	100	100

Table 3:- Gender of the Respondents Field Survey, 2019

The above table reveal the gender of the respondent captured in the study it shows that 52% of the respondent are female while 48% of the respondent are male the result show that majority of the people in the study are female.

AGE	FREQUENCY	PERCENTAGE
10 AND 20	85	85
21 AND 30	5	5
31 AND ABOVE	10	10
TOTAL	100	100

Table 4:- Age of the Respondent Field Survey, 2019

The table above shows the various age of the respondent that captured in the study the analysis show that 85% of the respondent are the between the age of 10 and 20, while 5% of the respondent lies between the ages of 21 and 30 and finally 10% of the respondent are between the age of 31 and above this show that majority of the respondent are in their teenage and productive age between the age of 10 and 20.

A. Hypothesis Testing

➤ Research Hypothesis 1

There is no any significant difference between practical computer lessons conducted in public and private senior secondary schools.

NUMBER OF TIME COMPUTER PRACTICAL IS CONDUCTED							
SCHOOL	MEAN						P-VALUE
PUBLIC	3.2	2.98	3.16	3.24	2	3.14	0.700968
PRIVATE	3.3	2.58	3	3.28	2.9	3.2	

Table 5:- The T-Test Table of the Significant Difference between Practical Computer Lessons Conducted in Public And Private Senior Secondary Schools.

T-TEST ANALYSIS RESULT AT 0.05% CONFIDENCE LEVEL 0.05***, 0.5**, 0.1*

There is no significant different between the number of computer lesson conducted in the private and government school in the study area.

From the table above using T.TEST to analyze the hypothesis at 0.05% level of confidence the p-value from

the analysis is found to be 0.701 which is greater than 0.05 therefor the hypothesis will be accepted because there is no significant different between the school.

➤ *Research Hypothesis 2*

There is no any significant difference between public and private senior secondary school in the use of instructional materials

AVAILABILITY OF PRACTICAL INSTRUMENT																
SCHOOL	MEAN															P-VALUE
PUBL	3.16	3.6	2.78	3.36	2.96	2.78	2.68	2.76	2.74	2.72	2.8	3	3.1	3.18	2.4	0.339496
PRVT	3.2	3.5	2.54	3.54	2.9	2.56	2.5	2.5	2.6	2.56	2.9	2.78	2.92	3.06	2.02	

Table 6:- T-Test Table of the Significant Difference between Public and Private Senior Secondary School in the Use of Instructional Materials

T-TEST ANALYSIS RESULT AT 0.05% CONFIDENCE LEVEL 0.05***, 0.5**, 0.1*

• *Hypothesis 2*

There is no significant different in the availability of the practical instructional material between the private and government secondary school in the study area.

From the table above it also using T.TEST to analyze the hypothesis at 0.05% level of confidence the p-value

from the analysis is found to be 0.339 which is greater than 0.05 but significant at 0.5 therefor the hypothesis will be accepted because there is no significant different between the school at 0.05% or 99% confidence level.

➤ *Research Hypothesis 3*

There is no any significant difference in the adequacy of school Instructors for practical computer lessons in public and private senior secondary

QUALIFY TEACHERS						
SCHOOL		MEAN			P-VALUE	
PUBLIC		2.6	2.1	2.7	1.98	0.794116513
PRIVATE		2.9	2.02	3	1.92	

Table 7:- T-Test Table of the Significant Difference in the Adequacy of School Instructors for Practical Computer Lessons in Public and Private Senior Secondary

There is no significant different in the level of qualified computer teachers between the private and government secondary school in the study area.

From the result showing in the table above using T.TEST to analyze the hypothesis at 0.05% level of confidence the p-value from the analysis is found to be 0.794 which is greater than 0.05 therefore the hypothesis will be accepted because there is no significant different between the school.

V. CONCLUSION

On the basis of finding of the study it was concluded that, there is no significant different between the number of computer lesson conducted, use of instructional materials and level of qualified computer teachers between the private and government secondary school in the study area.

RECOMMENDATIONS

Based on the outcome of the study, the following recommendations were made.

➤ Government and school authorities should make adequate annual budgetary provisions for computer

facilities to allow for periodic replacement, continuity and availability of school facilities.

- The government and school management should ensure regular computer practical lessons for students.
- The government and school management should provide qualified teachers' for effective computer practical lessons.

REFERENCES

- [1]. Adomi EE, Kpangban E (2010). Application of ICTs in Nigerian Secondary Schools. Library Philosophy and Practice 2010. Retrieved March 8, 2012 from www.Webpages.uidaho.edu/~mbolin/adomikpangban.htm/.
- [2]. Aduwa-Ogiegbaen SE, Iyamu EOS (2005). Using Information and Communication Technology in Secondary Schools in Nigeria: Problems and Prospects. *Educ. Technol. Soc.* 8(1):104-112. Retrieved, March 2, 2012, from www.ifets.info/journals/8_1/13.pdf/.
- [3]. Agyeman OT (2007). Survey of ICT in Education in Nigeria. *Survey of ICT and Education in Africa: Nigeria Country Report*. Washington-DC: infoDev/World Bank, pp.1-10.
- [4]. Bada T, Adewole A, Olalekan O (2009). Uses of Computer and Its Relevance to Teaching and Learning in Nigerian Educational System. *Educ. Res. Rev.* 4(10):443-447. Retrieved March5, 2012 from <http://academicjournals.org/err/PDF/Pdf%202009/Oct/Bada%20et%20al.pdf>
- [5]. Cawthera A (2005). Computers in Secondary Schools in Developing Countries: An Analysis of Costs. *School Net Africa*. Retrieved March 2, 2012 from www.Schoolnetafrica.org/fileadmin/resources/An%20analysis%20costs.pdf.
- [6]. EUROSTAT (2012). Community Survey on ICT Usage in Households and by Individuals, Eurostat Model Questionnaire 2012, Version 3.2. Retrieved March 15, 2012 from http://circa.europa.eu/Public/irc/dsis/emisannexes/library?1=data_-_database/theme_3_-_popul/isoc/householdsindiv&vm=detailed&sb=Title.
- [7]. Jegede PO, Owolabi JA (2003). Computer Education in Nigerian Secondary Schools: Gaps between Policy and Practice. *Meridian: A Middle School Computer Technology Online Journal*, 8(1), Retrieved March 4, 2012 from www.ncsu.edu/meridian/sum2003/nigeria/2.html/.
- [8]. Kubiato M (2007). Information and Computer practical of High School Students. *Variety of Education in Central and Eastern Europe* 2:31-36. Retrieved, March 3, 2012 from www.ped.muni.cz/weduresearch/publikace/0048.pdf/.
- [9]. Miller E (2004). The Introduction of Computers in Secondary Schools in Jamaica: A Case of Bottom-up Reform. In: Chapman DW, Mahlck LO (eds). *Adapting Technology for School Improvement: A Global Perspective*. Paris: International Institute for Educational Planning/UNESCO pp.101-121.
- [10]. Nigerian National Policy for Information Technology (2001). National Information Technology Development Agency. Retrieved March 3, 2012 from www.nitda.gov.ng/document/nigeriaitpolicy.pdf/.
- [11]. Oluwatayo JA (2012). Assessment of Computer practical of Secondary School Teachers in Ekiti State, Nigeria. *J. Int. Educ. Res.* 8(2):1-8. Retrieved March 8, 2012 from www.journals.cluteonline.com/index.php/JIER/article/download/.../6904.
- [12]. Otuka JO (2004). *Educational Research Methods (EDU 702)*. Lagos: Macmillan Publishers Limited/National Open University of Nigeria pp.110-111.
- [13]. United Nations (2005). *Designing Household Survey Samples: Practical Guidelines*. United Nations, Series F (98):26-27.