

## Evaluation of the Extent School Access Programme Assists Students to Acquire ICT Skills in South-East Nigeria

<sup>1</sup>Kingsley O. Okoro, <sup>2</sup>Chinwe Enyi and <sup>3</sup>Vivian Ogechukwu Amanambu

<sup>1</sup>Department of Science Education,

<sup>2</sup>Department of Educational Foundations, University of Nigeria, Nsukka, Enugu State, Nigeria

<sup>3</sup>Department of Chemistry, Nnamdi Azikiwe University, Awka, Anambra State, Nigeria

---

**Abstract:** The major purpose of the study was to evaluate the extent school access programme assisted students the to acquire ICT skills in South-East Nigeria one reference question was answered and one hypothesis was tested at 0.05 level of significance. The study employed an evaluation design of the study was 10,000 students in South-East Nigeria in 2017/2018 session. Direct observation was used to observe, monitor 50 students in 2 rural and 2 urban schools to determine the ICT-skills they acquired with the assistance of SAP as an ICT platform in South-East Nigeria. The scores realized from the observation were analyzed with mean, standard deviation and student t-test. The result showed that the school access programme assisted students in South-East Nigeria to acquire ICT skills at very great extent.

**Key words:** ICT skills, South-East Nigeria, significance, 2 rural, 2 urban schools, t-test

---

### INTRODUCTION

Globally, the labour force is highly sensitive to ICT utilization. The demand for ICT utilization in every department and organization is on the increase daily. The developing economy needs high ICT skilled manpower with new potentials to improve the dwindling economy. In order to cope with the demand that stems from our modern-day an ICT-based economy is essential and paramount. However, to achieve the ICT-based economy there is a need to revitalize and revolutionize the nation's educational system. The educational system should be tailored towards meeting the demand of labour force which is highly sensitive to ICT utilization Igbuzor (2006). In planning the educational system of any country, such a system should be conceptualized to favour the learner. The goal of the learner must be identified. This means the goal of the learning process. Why should students acquire ICT skills? This is done to face the demand of the labour market and students lifelong challenges. Furthermore, Riet (2009) in an explanation of this stated that the purpose of activity determines the child's ego involvement in that activity. Specifically, the education system should state what the child or student should do to achieve societal goals and aspirations.

However, for students to face societal challenges and as well address critically the demand of labour force that is ICT-based, the student should be equipped with ICT-skills. This means by all standards and as a pre-requisite, students should acquire ICT skills that could enable them to compete favourably in the labour market both nationally and globally. Meanwhile, students

cannot acquire the ICT skills without a formidable ICT platform to critically address the problem of ICT skill acquisition at the secondary school level in Nigeria. The Federal Government of Nigeria under the National Communication Commission of Nigeria introduced the School Access Programme (SAP) in the year 2007 (Anonymous, 2007). The School Access Programme (SAP) is an ICT outfit designed by the National communication commission of Nigeria to stimulate ICT and software application at our secondary school levels (Anonymous, 2007). Okoro (2012) defined ICT as the use of computer and telecommunications system in the collation, collection, analysis, processing, manipulation, storage, retrieval, transmission and communication of data in different forms which may include audiovisual and audio. In each school that benefited from the school access programme in South-East Nigeria, government provided 100 lab tops, 2 printers, solar power system, band with, ICT laboratory, offices, chairs, tables, computer education teachers and computer education textbooks. The effective utilization of these inputs will facilitate the achievement of ICT skills by the students nationwide. The acquisition of ICT skills is not a simple task. Students are expected to go through both practical and theoretical training to acquire the required knowledge and skills. Dekeyser (2007) is of the view that skill acquisition training is a routinized activity, constant practice makes the trainee automatic (proficient in processing the skills). Skill acquisition training exercise covers covert behaviours playing musical instruments, driving a car, typing, erecting a wall and productive language, skill acquisition training can be in one to one

level of learning or can involve numerous participant. In order to achieve this stressful task, the ICT teacher is expected to know the intellectual capacity of the students. This will guide the teacher to determine the type of training to offer to the student (either one to one or group training). Eddy and Akpan (2009) pointed out that the intellectual level of the child should be considered in skill acquisition training exercise. The attitude, interest, needs and aspirations of the students are important in skill acquisition training exercise and these variables should be given at most importance. Acquisition of ICT skills by students has much usefulness. The acquisition of ICT skills will enable students to understand the ideas, knowledge and concepts inherent in computer education studies. Such ICT skills will help students to type better, faster, accurate, operate computer competently, conduct analysis and conduct calculations using computer system.

Furthermore, ICT-skill acquisition by students will enable them to conduct research activities effectively. The possession of the skills will enable the student to explore all resource materials with a high level of experience. Stenbick and Bislany explained that effective research activities need possession of ICT-skills that will facilitate the research activities. The acquisition of ICT skills by students will enable them to effectively carry activities involving internet exploration like the opening of emails, checking of emails, sending and receiving of messages and Facebook communication. Sule *et al.* (2013) in stressed stated that without some level of ICT-skills, students cannot carry out activities involving internet navigation effectively.

The acquisition of ICT skills helps students to check their bank balances and conduct money transfers to relations and friends. Without good ICT-skills and experiences, students cannot adequately and effectively check their bank balances or do monetary transfers Obi (2012). Possession of ICT-skills enables students to operate their phones, computers and laptops effectively. Operation of many mechanical devices requires the acquisition of ICT skills to do so. Students with ICT skills can also use the skill at home in the areas of entertainment such as games, films and music. Students with sound ICT skills operate the game, film and music devise for entertainment effectively than students without the ICT skills. In Nigeria, students cannot attempt Jamb questions without being competent and effective in ICT utilization. It is imperative and a pre-requisite condition for attempting Jamb questions. Student performance in many examinations depends on their wider application of ICT-skills. Therefore, there is a close relationship between possession of ICT-skills and student's scores (Kozma *et al.*, 2004).

However, one of the factors is that the learning environment should be ICT-based. The ICT based

environment will enable students to explore necessary ICT skills needed to transform the economy and as well as advance their future career. The Federal Government of Nigeria is in the right direction by introducing School Access Programme (SAP) which is an ICT-platform. SAP is an ICT platform designed by universal service provision fund to stimulate ICT and software applications in Nigerian secondary schools. The number of SAP centres in South-East Nigeria is 183 and comparing the centres with the number of secondary schools in South-East Nigeria, the number is insignificant. Such SAP centres should be expanded to enable the majority of students in the South-East zone to acquire ICT skills. An insufficient number of students with ICT skills cannot effectively change the labour force to an ICT based labour force. However, it is not only restructuring the learning environment to be ICT-based that can facilitate the acquisition of ICT skills by students but other factors can also enhance the acquisition of the ICT skills by students. The training exercise should be a routinized activity. Learning the skills needs constant practice daily with the guidance of a competent ICT teacher with a high level of proficiency in teaching. Practical ICT exercises should be given to students and they should be observed to conduct the exercises to ensure they carry out those tasks at the appropriate time. This means that students should be monitored to demonstrate the skills to determine the skills they acquired and how proficiency they are in the demonstration of those skills. The essence of this is to ensure that the objective of school access programme-assisting students to acquire ICT skills is realized. The establishment of the school access programme will amount to waste of funds, if its objective is not realized. There should be credible empirical evidence to show that the school access programme realized its objective. The empirical evidence that will guide the stakeholders of SAP to determine the quality of services the programme officers to its clients. The evaluation of the programme to show the quality of ICT skills the programme offers to its clients is mandatory and obligatory. The programme for the past 10 years has not been evaluated.

Programmes are evaluated to determine whether they comply with their operating guideline. Many programme implementers distort the original plan of their programme by deviating greatly from the design and guideline of their programme. Farwanton explained that the programme should be evaluated to determine the extent they comply with their guidelines and design. On this recognition, the school access programme should be evaluated to determine its compliance with its operating guidelines. Programmes should be evaluated to determine whether the services they offer to their clients worth their costs or not. According to Stake (2004), this is known as effective programme management and it is done by comparing the

cost of programme services with its worth or value. The school access programme should be evaluated to provide data that will indicate how efficient its services are to its clients. Programmes are evaluated to determine whether they could be duplicated elsewhere. An effectively managed programme will yield positive results that could compel the stakeholders to duplicate the programme elsewhere. Such duplication function needs evaluative feedback. The school access programme should be evaluated to ascertain whether it could be duplicated in other assessed secondary schools. The schools that need such services in South-East Nigeria should be identified. The above reasons are the rational why school access programme in South-East Nigeria should be evaluated. The programme should be evaluated to determine the ICT-skills it assisted students to acquire. The programme should be evaluated to determine whether its platform as an ICT based programme is capable of assisting students to acquire ICT skills.

## **MATERIALS AND METHODS**

**Statement of the problem:** The introduction of the School Access Programme (SAP) to Nigeria secondary schools has been adjudged by many scholars as a sound and useful programme whose proper implementation is likely to result in the achievement of ICT skills needed for the nations educational growth and socio-economic development. In order to meet up with the ICT skills necessary to sustain the diversified labour market demand which is sensitive to high ICT application, the approach has been to identify ways and means of enhancing the quality of ICT skills offered by the school access programme to the students. Meanwhile, the empirical evidence to confirm the extent to which the school access programme in South-East Nigeria assisted students to acquire ICT skills is not available in the literature. The non-availability of the empirical data to show the extent to which the programme assisted students to acquire ICT skills suggests the need to carry out this study. The problem of the study was: To what extent does the school access programme assist students to acquire ICT skills in South-East Nigeria?

**Purpose of the study:** The main purpose of the study was to evaluate the school access programme to determine whether the programme as an ICT platform has the capability of assisting students to acquire ICT. Skill specifically the study determined the extent to which the school access programme assisted students to acquire ICT skills in South-East Nigeria.

**Significance of the study:** Theoretically, Dekeyser (2007) who propounded the theory of skill acquisition was of the view that skill acquisition training is a routinized

activity, constant practice makes the trainee proficient in the processing of the skills and skill acquisition exercise could be one or group training. The skill acquisition theory of Dekeyser applies to school access programme that emphasizes habit formation and routine activity just like school access programme that advocates for routinized activity. The theory will benefit from the finding of the study as a result of wider consultation from researchers. Practically, the findings of the study will be of immense value to programme stakeholders, ICT teachers, students, Ministry of Education and the society at large. The findings of the study will enable programme stakeholders to find out whether the school access programme in South-East Nigeria realized its objective of assisting the students to acquire ICT skills. Such information will help the stakeholders either to eradicate, modify or refocus the programme. The findings of the study will serve as an assessment index to ICT teachers as it will help them know the ICT skills their students achieved. The findings of the study will enable the Ministry of Education to know the ICT-skills the programme under its supervision offered to students. The information will enable them to advise the school access programme stakeholders properly on what to do with the programme in the area of modification, duplication or redesign of the programme. The findings of the study will enable students to be aware of their performance with regard to the ICT skills they achieved. This will help them to detect their areas of weaknesses and how to put more effort into their studies. Finally, the finding of the study will help the society know what happened to the school access programme. It will enable the society to know the area they can help in the implementation process of the programme.

**Study scope:** The content scope of the study was the evaluation of the extent to which the school access programme assisted students in South-East Nigeria to acquire ICT skills. The geographical scope of the study was South-East Nigeria.

**Research question:** To what extent does the school access programme assist students to acquire ICT skills in South East Nigeria?

**Hypothesis:** There is no significant difference between the mean rating of students in urban and rural schools on the extent to which SAP assisted students to acquire ICT skills in South-East Nigeria.

**Research method:** The evaluation research design was adopted for the study. The evaluation design is a strategy developed by an evaluator to determine the overall effectiveness of a programme by comparing the objectives proposed in the programme as against the achieved

objectives Campbell and Stanley (2004). The design provided evaluative feedback to the stakeholders of the programme. The population of the study consists of 10,000 comprising of 3866 SS II male students and 6134 SS II female students of 2017/2018 session that offered computer students in 183 secondary schools that benefited from school access programme in South-East Nigeria. Cluster random sampling technique was employed to draw two states out of 5 states in South-East Nigeria. Also, a simple random sampling technique was used to draw two urban and two rural schools making a total of 4 schools for the observation of the study. In addition, 6 SS II male students were drawn from each of the two urban schools, 8 and 7 female SS II students were drawn from two of the rural school sand 5 male SS II students were drawn from each of the two rural schools. Also, 6 and 7 SS II female students were drawn from the two of the rural schools, respectively, making a total of 50 students for the direct observation of the study.

Furthermore, the instrument used in the study was an observation schedule titled School Access Programme Observation (SAPOS). It was used to collect the pertinent data of the study. The instrument consists of sections A and B. Section A was designed to collect the personal characteristics of the respondents while section B which is a 4 item instrument was designed to indicate the extent to which school access programme assisted students to acquire ICT skills. The instrument was rated on four-point likert scale of Very Great Extent (VGE), Great Extent (GE), Low Extent (LE) and Very Low Extent (VLE). The SAPOS was face validated by three experts in both departments of science education and vocational teacher education from the University of Nigeria, Nsukka. The data collection was carried out by the researchers. The researchers observed, monitored and recorded the ICT skills acquired by the students in the four schools sampled for the direct observation of the study. The exercise lasted 3 days in each of those schools making a total of 12 days for the observation activity. Descriptive statistics (mean and standard deviation) was used to answer the research question of the study while t-test was used to test the hypothesis at 0.05 level of significance.

## RESULTS AND DISCUSSION

**Research question:** To what extent does school access programme assist students to acquire ICT skills? Result in Table 1 revealed that items 1-4 had their mean values ranged from 3.52-3.74 which is within the real limit of 3.50-4.000, indicating that the extent to which the items assisted students to acquire ICT skills is to a very high extent. The cluster mean of 3.61 implies that the extent to which SAP assists students to acquire ICT skills is to a very great extent. The standard deviation of the 4 items ranged from 0.63-0.86, indicating that the respondents were homogenous in their acquisition of the ICT-skills.

**Hypothesis:** There is no significant difference between the mean ratings of students in urban and rural schools on the extent SAP assist students to acquire ICT skills. Result in Table 2 revealed that t-value of 0.440 was obtained with a significant value of 0.000. Since, the significant value of 0.000 is <0.05 level of significance, the null hypothesis was rejected. The researchers, therefore, concludes that there is a significant difference in the mean ratings of students in urban and rural schools on the extent SAP assist students to acquire ICT skills.

The findings of the study revealed that the extent to which SAP assisted students to acquire ICT-skills is at a very great extent. The standard deviation on the extent SAP assists students to acquire ICT-skills shows that there is a uniform spread in the response score of the recipients of the programme around the mean. The ICT skills performed by students revealed that SAP assistance to students in the acquisition of ICT skills was at a very great extent. The hypothesis on the extent SAP assist students to acquire ICT skills shows that there was a significant difference between the mean score of students in urban and rural schools. This means that students response to ICT-skills pencilled down for them to perform were quite different. The findings by Okpoko which centred on computer literacy programmes in the Enugu State of Nigeria revealed that the level of compliance with computer professional council of Nigeria by non-formal computer literacy centres was adequate.

Table 1: Mean score and standard deviation of students on the extent SAP assists students to acquire ICT skills in South-East zone of Nigeria (n = 50)

Item statement	Mean ( $\bar{X}$ )	SD
Student can type documents on their own without supervision	3.52	0.86
Students can save documents they typed in the computer memory	3.74	0.82
Students can retrieve information from computer memory	3.63	0.63
Student can independently print typed documents without supervision	3.54	0.76
Cluster mean	3.61	0.79

Table 2: t-test analysis of the significant difference between the mean ratings of students in urban and rural schools on the extent SAP assists students to acquire ICT skills in the South-East zone of Nigeria

Status	N	Mean	SD	df	t-values	Level of sig.	Sig. (2-tailed)	Decision
Urban	27	3.78	0.39	48	0.440	0.05	0.000	Reject
Rural	23	3.43	0.35	-	-	-	-	-

The study of Okpoko supports the present study which SAP assistance to students in the acquisition of ICT skills was at a satisfactory level. This means that students in the urban location of the study may understand ICT concepts and skills faster than their counterparts in rural schools. The present study contradicts the work by Fariwanton which the findings revealed that. School location does not influence the mean scores of the respondents. The findings of the present study showed otherwise and affirmed that the location of the study is contingent upon the mean scores of the recipients of the programme. Students with high ICT-skills attempt questions faster than students without ICT skills. Speed and accuracy is part of examination skills and proficiency in ICT utilization which is gained through routinized ICT daily practice in schools gave students the advantage to attempt ICT based questions faster and with a high level of accuracy (Okoro, 2012). The availability of ICT equipment in schools affords learning environment much diversity and it gives students wider opportunities in life. This wider opportunist creates room for educational change in society. ICT based learning environment is a good step towards technological development globally and Nigeria has the vision to modernize learning environment that will offer students good career opportunities. The above articulated reasons are the usefulness and benefits of the acquisition of ICT skills by students. From the above articulated reasons, there is credible evidence that the education system with high ICT-skills and potentials can transform the nations labour force. The transformation of the labour force can as well give credence to the economic and technological development of the nation.

### **CONCLUSION**

The conclusion derived from the findings of the study was that school access programme assisted students to acquire ICT skills in South-East Nigeria. Such ICT skills is a headway towards achieving potential labour force which is a step towards developing the economy of the Nation. Nigerian government should establish more SAP

centres in the country to enable many students to acquire the ICT skills. On this premise, many Nigerian secondary schools should be ICT-based. This is necessary to meet the labour market demand that is sensitive to ICT application globally.

### **REFERENCES**

- Anonymous, 2007. Universal service provision fund strategic plan 2007-2011. National Communication Commission, Abuja, Nigeria.
- Campbell, L. and O. Stanley, 2004. Process of programme evaluation. *J. Hum. Educ.*, 3: 20-25.
- Dekeyser, R., 2007. *Skill Acquisition Theory*. Lawrence Erlbaum Associates, Mahwah, New Jersey, USA.,.
- Eddy, E.N. and M.E. Akpan, 2009. The prospect of UBE programme in Akwa Ibom State, South-South Nigeria. *Int. NGO J.*, 4: 46-49.
- Igbuzor, Q., 2006. The state of education in Nigeria. *J. Non Governmental Programme*, 46: 13-14.
- Kozma, R., R. McGhee, E. Quellmalz and D. Zalles, 2004. Closing the digital divide: Evaluation of the World Links program. *Intl. J. Educ. Dev.*, 24: 361-381.
- Obi, B.O., 2012. Poverty alleviation and Youth empowerment in Nigeria. *J. Youth Empowerment*, 1: 15-20.
- Okoro, K.O., 2012. Content validity of computer education multiple choice test items used in Ebonyi State junior secondary schools. M.Ed Thesis, University of Nigeria Nsukka, Nsukka, Nigeria.
- Riet, M.R., 2009. The production of cont: Using activity theory to understand behavior change in response to HIV and AIDS. Ph.D Thesis, University of KwaZulu-Natal, KwaZulu-Natal, South Africa.
- Stake, R.E., 2004. *Standards-Based and Responsive Evaluation*. Sage Publication, Thousand Oaks, California, USA., Pages: 280.
- Sule, J.A.G., F.C. Alinno and D. Ikwegbe, 2013. Rural economic development: Policy implementation in Nigeria. *Intl. J. Acad. Res. Bus. Soc. Sci.*, 3: 23-36.