

Evaluation of the Extent School Access Programme Assisted Teachers to Acquire ICT Skills

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Abstract: This study was carried out to evaluate the extent to which School Access Programme (SAP) assisted teachers to acquire ICT skills in South-East Nigeria. The population of the study was 4,141 respondents. Direct observation was used to observe, monitor and document the ICT skills acquired by 40 teachers observed in 2 rural and 2 urban schools sampled for the direct observation of the study. The scores generated from the observation was analyzed with mean, standard deviation and student t-test. The result showed that SAP assisted teachers to acquire ICT skills in South-East Nigeria at great extent. Therefore, the federal government should establish more ICT centres to enable all the teachers in South-East Nigeria to acquire ICT skills. The programme should be evaluated in other zones in Nigeria to determine the skills acquired by teachers in those zones.

Key words: Evaluation, ICT skills, teacher's observation, school access programme, Nigeria, analyzed

INTRODUCTION

In any school system, the teacher occupies a formidable position in the teaching and learning process. The teacher guides and directs every academic activity in the classroom. The teacher plans the lesson does the teaching and assigns scores to students. Therefore, the teacher should be effective in the classroom. The effectiveness of the teacher in the classroom depends on his personality, characteristics, professional competencies and his level of motivation to students. An intelligent and highly motivated teacher with high professional competencies stands a better chance of achieving desired results with students than the teacher with low attributes mentioned above. Also, the teacher should be knowledgeable in the subject matter content and behavioural objectives of the subject he/she teaches. The in-depth knowledge of the subject he/she teaches will enable him/her to deliver his/her lessons effectively. Okwor (2012) in an explanation of this point affirmed that teachers cannot effectively carry out their teaching activities in the classroom, if they are not sound and knowledgeable in the subject matter content and behavioural objectives of their subjects. However, apart from being active in the classroom, it is the responsibility of the teachers to implement the secondary school curriculum. The implementation of the curriculum needs committed and dedicated teachers who will perform the function effectively. Furthermore, for teachers to effectively implement the curriculum they need to be

updated in their teaching subjects. Idoko (2011) explained that proper implementation of any curriculum is essentially a function of the quality of teachers and this leads credence to the need to update the knowledge of teachers who are responsible for updating the knowledge of students in their various subjects. Seminars and workshops have been organized by both state and federal ministries of education in Nigeria to update the knowledge of teachers in their various subjects.

Also, the Nigerian government have been making efforts to update teacher's knowledge to enable teachers to produce graduates with high potentials who will conveniently meet the demand of the labour force. The labour force worldwide is subject to changes. The rationale for such rapid changes is attributable to the needs and aspirations of the society which keep on changing daily. The teachers who are responsible for the production of graduates with high potentials should be versatile in various teaching methods and strategies, well informed of their subjects and be equipped with the necessary skills and experiences. This will enable them to expose their students to the needed skills and knowledge needed by the labour force. Such knowledge, skills and experiences exposed to students will enable them to fit in properly in the labour force. The big concern is about the steps to take to enable teachers to become updated in knowledge and skills. Workshops and seminars should be organized to improve the professional competencies and skills of the teachers. Such seminars and workshops should address issues in the areas of effective use of

instructional materials, adopting appropriate teaching methods and strategies and how best to equip teachers with adequate and appropriate skills. However, both the State and Federal Government of Nigeria have at various times organized seminars and workshops for teachers. This means that the government is on the right direction towards updating the knowledge and skills of teachers within the country. Seminars and workshops could be effective in updating the professional competency of teachers in their various subjects. But what about the skills? The skills need along with timely training and such training offered at workshops and seminars levels is transient and it cannot effectively update the skills needed by teachers to transform the labour force. In an explanation of this point, Ali (2001) was of the view that training offered to teachers at workshop and seminar levels are not exhaustive and thus, cannot stimulate teachers to further bring their experiences to bear in achieving the desired skills. Teachers are expected to be committed, dedicated and regular in practice to achieve these skills. Various skills such as electrical skill, mechanical skills etc. are available for the teacher to acquire but the most skill needed is the ICT skills uniformly desired by the labour force. The labour force is highly sensitive to ICT utilization and most Nigerian teachers are not competent in ICT application.

The Nigerian teachers, therefore, need to be equipped with ICT skills to enable them to transform the labour force. The teachers should be equipped with ICT skills to enable them to carry out any internet activities they may desire to do. Also, Ali (2001) pointed out that teachers need to be equipped with ICT skills to enable them effectively check their emails, mark students assignments and exams online and register students scores on the school websites for students future references. The teacher should be equipped with ICT-skills to enable them to conduct research activities within the school. This will enable them to explore good resource materials for effective teaching and learning of their subjects. Ali (2006) pointed out that teachers needed ICT skills to enable them to source different resource materials needed for effective teaching and learning of their subjects in the school. Teachers need ICT skills to enable them to apply ICT in teaching of their subjects. Teachers cannot effectively apply ICT-skills in teaching their subjects without being equipped with the ICT skills. Teachers must strive for the acquisition of the ICT skills to enable them to perform the above functions.

Teachers need ICT skills to enable them to improve their income capacity to open up ICT centres for income generation. Teachers can manage ICT centres for more income for the upkeep of their families after school hours. Such an adventure will boast the income capacity of the family which could be used to offset

most of their needs. Possession of ICT skills will enable teachers to type their question paper by themselves without taking them to public ICT centres. The exposure of the question papers to such ICT centres can lead to examination malpractice. Njoku in stressing this point confirmed that teachers should be equipped with ICT-skills to enable them to prepare their question paper on their own without subjecting question papers to public ICT centres which are prone to examination malpractice.

Also, most of the teachers may need to further their educational careers to obtain higher degrees. Teachers can conduct data analysis and such activities and data analysis needs the possession of ICT skill. The possession of ICT-skills will facilitate such activities and analysis can be carried out by teachers themselves without contracting it out to statistician who may demand high bill for such analysis. Teachers cannot effectively acquire the ICT skills without a formidable ICT centre at their disposals. The availability of adequate and appropriate ICT equipment are essential for teachers effectiveness in the classroom. It is imperative and essential that the Nigerian government should install quality and functional ICT equipment in her public secondary schools. Furthermore, to address the absence of ICT equipments in our public secondary schools, the federal government mandated the universal service provision fund under the national communication commission of Nigeria to introduce school access programme to Nigerian public secondary schools in 2007 School Access Programme (SAP) is an ICT outfit designed by universal service provision fund (Anonymous, 2007) to stimulate ICT and software applications in Nigerian secondary schools. The programme has the capacity of transforming the labour force to ICT based labour force. The programme is positioned to produce secondary school graduates who can compete favourably at the global market and also update teacher's professional competencies. The programme will facilitate teachers acquisition of ICT skills at the secondary school level and as well as help them teach their subjects with the application of ICT. According to Ibe (2010), the programme was introduced at the secondary school level to enable teachers to produce students who will meet up with the labour market demand which is diversified in nature and also highly sensitive to ICT application.

The programme is also established to transform the Nigerian economy to ICT based economy. Globally, most economies are ICT based and Nigeria economy should be tailored towards achieving ICT based economy. The establishment of a school access programme is a good step towards the attainment of ICT base economy (Rufai, 2012). School access programme is a formidable ICT programme which has the capacity of updating the ICT skills of teachers and students. Also, the programme has

the potentiality of transforming both the Nigerian labour force and the Nigerian economy. Rufai (2012) believe that SAP is pivotal and has the capacity of assisting both teachers and students to acquire the needed ICT skills and as well as the capacity of transforming the economy of the nation. On this note, the Federal government should take adequate steps to ensure that the school access programme assists teachers to acquire ICT skills needed for the transformation of the nation's educational system and the economy.

It is one thing to establish a programme but the major faction is to ensure that the programme is properly implemented. It is necessary and obligatory that an evaluation should be conducted on the programme to determine its effectiveness. The school access programme should be evaluated to determine the quality of ICT skills it offers to teachers in South-East Nigeria. The programme should be evaluated to determine whether it needs expansion, refocus or new direction. According to Bailey and Deen (2002), a programme should be evaluated to determine whether the programme needs expansion, refocus or new direction. Also, SAP should be evaluated to determine its cost-efficiency. The cost-efficiency of a programme can be determined by comparing the cost of the services the programme offers to its recipients with the worth or value of those services (Woolcock, 2011). The school access programme should be evaluated to determine whether it is operating according to its guidelines and design. Many programme implementers deviate greatly from programme guidelines and thereby destroy the original plan of that programme. Such, inefficiency leads to failure. Bamberger *et al.* (2004), programmes should be evaluated to determine the extent such programmes comply with their operating guidelines. Also, the school access programme should be evaluated to determine whether the programme realized one of its key objectives of assisting teachers to acquire ICT skills. For the past 10 years, the programme has not been evaluated. There is no empirical evidence in the literature to show the extent the programme assisted teachers to acquire ICT skills. The non-availability of empirical evidence to show the extent school access programme assisted teachers to acquire ICT skills or otherwise suggested the need for the investigation of this study.

MATERIALS AND METHODS

Statement of the problem: The introduction of a school access programme is a good development to the educational system of the country which its proper implementation will facilitate teachers acquisition of ICT skills in South-East Nigeria. Meanwhile there is no empirical evidence to show how well or otherwise the school access programme as an ICT platform has the

capacity of assisting teachers to acquire ICT skills in South-East Nigeria. There is no empirical data to show the extent SAP assisted teachers to acquire ICT skills in South-East Nigeria. The non-availability of empirical data to show the extent the programme contributed to the teacher's acquisition of ICT skills constitutes a critical problem which if not solved will continue to persist. The problem of this study is to what extent does the school access programme in South-East Nigeria assist teachers to acquire ICT skills?

Purpose of the study: The purpose of the study was to determine the extent school access programme assisted teachers to acquire ICT skill in South-East Nigeria.

Significance of the study: Practically, the findings of the study will be of immense educational value to government, Ministry of Education, programme planners, programme developers, school heads, teachers and the society at large. Specifically, the findings of the study will help the government to be aware of the ICT skills SAP assisted teachers to acquire. Such information will enable the government to determine the extent teachers can carry out research activities, internet services and apply ICT in teaching and learning of their subject. The findings of the study will enable the ministry of education to determine teachers with ICT skills and how competent they are in the utilization of those ICT skills. Also, the findings of the study will enable programme planners to ascertain the extent the implementers of SAP implemented what they planned. The findings of the study will help school heads to determine the extent the computer education teachers are implementing the school access programme. The school heads will ascertain the areas the implementation process is poor and such ascertainment will enable the school heads to put up adequate supervision of the programme. The findings of the study will serve as an assessment index of teachers. It will enable teachers to compare the ICT skills they acquired with the ICT skills they are expected to acquire. The gap identified will energize them into action for further ICT training. The findings of the study will enable the society to determine what happened to the school access programme. This will enable them to know how to come in for financial assistance.

Scope of the study: The content scope of the study is the evaluation of the extent SAP assisted teachers to acquire ICT skills. The geographical scope of the study is South-East Nigeria.

Research questions: To what extent does the school access programme assist teachers to acquire ICT-skills?

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

Research method: The study employed an evaluation design. The evaluation design is a structure or strategy developed by an evaluator to determine the overall effectiveness of a programme by comparing the objectives achieved as against the objectives of the programme using an appropriate model of programme evaluation. The population of the study consists of 4,141 teachers comprising of 1945 male teachers and 2196 female teachers in 183 secondary schools that benefited from school access programme in South-East Nigeria in 2017/2018. The sampling techniques used in the study are stratified proportionate random sampling technique, simple random sampling techniques and cluster random sampling technique. Simple random sampling technique was used to draw 18 teachers from rural schools and 22 teachers from urban schools for the direct observation of the study. Simple random sampling technique was used to draw two urban and two rural schools making a total of 4 schools for the direct observation of the study. Simple random sampling technique was used to draw 5 male teachers and 6 female teachers from each of the two urban schools and 4 male teachers and 5 female teachers from each of the two rural schools making a total of 40 teachers for the direct observation of the study. Simple random sampling technique was used because it gave each respondent an equal and independent chance of being inclined in the sample. Cluster random sampling technique was used to draw 2 states out of the 5 states and such sampling techniques was used to ensure the bridge of the time frame and to ensure that excess waste of fund was minimized in studying of the entire states and secondary schools within South-East Nigeria. Furthermore, the observation schedule was the instrument used for the collection of the relevant data of the study. School Access Programme Observation Schedule (SAPOS) a 4 item instrument was employed to monitor, observe, document and to access the programme activities. School access observation schedule consists of section A and B. Section A was designed to request information on the personal characteristics of the respondents while section B was designed to determine the extent SAP assisted teachers to acquire ICT skills in South-East Nigeria. The instrument was rated on four point-like scales of Very Great Extent (VGE), Great Extent (GE), Low Extent (LE) and Very Low Extent (VLE). However, the instrument was given to three experts in both the Department of Science Education and Vocational Teacher Education both from the University of Nigeria, Nsukka for face validation. The experts were requested to validate the instrument for clarity,

appropriateness and relevance of the items of the instrument and also ensured that the items elicited the required skills expected from the respondents. The instrument was administered to the teachers by the researchers for 3 days and the skills acquired by teachers were observed and documented by the researchers. The scores realized from the observation were analyzed using mean, standard deviation and student t-score.

RESULTS AND DISCUSSION

Research question: To what extent does the school access programme assist teachers to acquire ICT skills? Result in Table 1 revealed that items 1-4 had their mean value ranged from 2.52-2.84. These values were within the real limit of 2.50-3.49, indicating that the extent to which SAP assists teachers to acquire ICT skills to these items is to a great extent. However, the cluster mean of 2.66 implies that the extent to which the School Access Programme (SAP) assists teachers to acquire ICT skills is to a great extent. Table 1 also revealed that the standard deviation of the four items ranged from 0.87-0.89, indicating that the respondents were not too far from the mean and from one another in their the ICT skill performed.

Hypothesis: There is no significant difference between the mean ratings of teachers in urban and rural schools on the extent SAP assists teachers to acquire ICT skills. Result in Table 2 revealed that t-value of 3.97 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 teachers in urban and rural schools on the extent SAP assists teachers to acquire ICT skills.

The findings of the study revealed that SAP assisted teachers to acquire ICT skills at a great extent. The programme helped teachers to operate computer effectively, use a computer keyboard, retrieve information from the computer memory, save information in the computer memory and retrieve what they typed from computer memory. The result of the study also showed that there was a spread around the mean in the response score of the respondent indicating that most of the teachers performed the ICT skills at great extent. The hypothesis revealed that there was a significant difference between the mean scores of teachers in urban and rural schools. This means that the way teachers in rural schools attended to the ICT skills they were exposed to was quite different in urban and rural schools. The study by Collins (2010) which centred on a medical education programme in England revealed that the foundation level of the programme lacks flexibility and its objectives were

Table 1: Mean score and standard deviation of teachers on the extent SAP assists teachers to acquire ICT skill in South-East zone of Nigeria

Items statement	Mean (\bar{X})	SD
The school access programme helps teachers to operate computers	2.62	0.86
The school access programme helps teachers to effectively use computer keyboard	2.52	0.88
The school access programme helps teachers to retrieve information from the computer memory	2.66	0.89
The school access programme helps teachers to save information/data in the computer memory	2.84	0.87
Cluster mean	2.66	0.88

Table 2: t-test analysis of the significant difference between the mean ratings of teachers in urban and rural schools on the extent SAP assists teachers 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	22	2.83	0.34	38	3.97	0.05	0.000	Reject
Rural	18	2.49	0.33	-	-	-	-	-

realized. The Collins study supported the present research which its objective of assisting teachers to acquire ICT skill was achieved. Also, the research by Fanwonton (2008) which centred on national teachers curriculum revealed that the mean scores of the respondents were not influenced by location but the present study contradicts that of Fariwanton which the scores of the respondent were contingent upon school location.

CONCLUSION

The conclusion was that the school access programme assisted teachers to acquire ICT-skill at great extent. The SAP emphasized the acquisition of ICT skills and on this note, the federal government should establish more ICT centres to enable all the teachers in South-East Nigeria to acquire ICT skills. The programme should be evaluated in other zones in Nigeria to determine the skills acquired by teachers in those zones.

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