CAPACITY BUILDING NEEDS OF THE UPPER UNIVERSAL BASIC EDUCATION TEACHERS FOR THE IMPLEMENTATION OF THE INFORMATION AND COMMUNICATION TECHNOLOGY (ICT) CURRICULUM IN CROSS RIVER STATE

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Abstract

This paper is a descriptive survey study on the capacity building needs of the UBE teachers for the implementation of ICT curriculum in Cross River State. The sample for the study consisted of three hundred and seventy five (375) teachers drawn from seventy five (75) secondary schools in southern Cross River State. The instrument for data collection was a 24-item questionnaire weighted in a 4-point likert scale. The mean and standard deviation were used to analyze the data. The results of the study showed that low level of ICT literacy and dearth of infrastructural facilities are factors that militate against the effective implementation of the ICT curriculum in the upper basic education classes. The result also showed that the teachers needed to be trained on computer and ICT usage to equip them for the task of implementing the curriculum. The paper thus recommended among others the training of the teachers on ICT and the connection of schools to the internet to boost innovation in the teaching process.

The Universal Basic Education (UBE) programme came into existence in 2004 through the Universal Basic Education Act of 2004. The UBE scheme brought a lot of far reaching reforms and innovations into the school curriculum. One of the major reforms in curriculum was the introduction of Information and Communication Technology (ICT) studies into the school curriculum. The UBE programme is to cover the first nine (9) years of education. This is made up of 6 years in primary school and three years of junior secondary school. The first three years in primary school is called the Lower Basic Education, the second three years is the Middle Basic Education while the three years in Junior Secondary School is tagged the Upper Basic Education. This study shall be limited to the upper basic education classes. This reform also affected teacher education, According to Obioma (2010), the public policy reform in teacher education as contained in the roadmap include computer literacy and ICT applications as a requirement for all NCE and undergraduate students.

According to Cox in Adejoh & Ozoji (2005) ICTs are the electronic and / or computerized devices and associated human interactive materials that enable the user to employ them for a wide range of teaching and learning process in addition to personal use. Concisely, ICT could be seen as the application of technology to improve learning and enhance achievement.

Curriculum innovation means making changes or updating the curriculum by way of introducing new topics or modifying the existing ones. This is done primarily to meet the demands and aspirations of the ever changing society. Therefore the introduction of ICT into the school curriculum according to Okojie (2010) was to pave way for access to information, development of systematic thinking, encourage team work among the students, availability of self training materials and making access to education more equal. Thus ICT affords the opportunity of revolutionizing pedagogical methods, expanding access to quality education and even improving the management of educational system. Other benefits include favorable influence on students towards learning (Eze, 2010) As asserted by Okebukola in Eya (2009)

> The global reform in education particularly in response to the effects of globalization demand that any Nation desirous of being a key player must be in the fore front of applying ICTS to all its education plans and processes.

The Federal Government of Nigeria being aware of this enshrined in the National Policy on Education under educational services that Government shall provide facilities and necessary

infrastructure for the promotion of ICT at all levels of education (FRN, 2004). It is known that a new policy creates a new problem. Thus after several years of the introduction of ICT into the school system, the paper seeks to find out the level of ICT literacy possessed by the serving teachers and the training needs they require in order to fully implement this policy. Also the paper seeks to find out the problems, if any, militating against the full implementation of the ICT curriculum in he Upper Basic Education Classes.

Research Questions

This paper intended to provide answers to the following research questions.

1. What is the level of ICT literacy possessed by the teachers of the Upper Basic Education programme?
2. Which area do these teachers need to be trained?
3. What are the factors that hinder the effective implementation of the ICT curriculum in the Upper Basic Education classes?

Method

The study adopted the descriptive survey research design. The population for the study consisted of one thousand and thirty two (1,032) Junior Secondary School teachers in the seventy five (75) secondary schools in southern educational zone of Cross River State. In each school five (5) teachers for the junior secondary classes were randomly selected making a sample size of three hundred and seventy five (375) teachers.

The instrument tagged computer awareness questionnaire (CAQ) was a twenty-eight item questionnaires which was reduced to twenty three after face validation. The twenty three (23) item questionnaire was administered on fifty (50) teachers in the northern Cross River State and after the construct validation, a stability index of 0.87 was obtained using Cronbach alpha coefficient.

The instrument was administered on the respondents by the researchers. The completed questionnaires were collected on the spot thus ensuring a 100% return rate.

The instrument was framed and weighted on a four point Likert scale of strongly agree (4), agree(3), disagree(2) and strongly disagree(1) for positive items and reversing the weightings for negative items.

Descriptive statistics of mean and standard deviation were used to analyze the data. An item with mean score of 2.50 and above was accepted while an item with a mean score of below 2.50 was rejected. The choice of 2.50 is because it is the average score of 4, 3, 2 and 1.

Result:

The results of the study are as presented in table 1 below

Table 1: Mean and Standard Deviation of the Response of the Serving Teacher on ICT Implementation in Upper Basic Education Classes.

S/N	ITEM	$\bar{X}$	SD
1	School has computers	1.02	0.91
2	Possesses good knowledge to operate computer	2.13	1.01
3	Processes information using computer	1.93	0.85
4	Easily identifies computer faults	1.90	0.91
5	Aware of computer software packages	2.75	1.10
6	Ability to use computer for teaching	1.15	0.87
7	School connected to internet	1.25	0.89

8	Has good knowledge of the internet	1.11	0.93
9	Ability to locate materials in the internet	1.35	0.98
10	Embraces e-learning services	3.15	1.11
11	Ability to teach with power point	1.14	0.88
12	Utilizes e-mail service	3.25	1.01
13	School has ICT teachers	1.33	0.87
14	Relates ICT ideas to everyday life	2.56	1.01
15	Explains ICT terms/ideas to the students level of understanding	2.41	1.11
16	Has personal computer	2.11	0.95
17	Had ICT training in the pre-service training programme.	1.73	0.89
18	Make personal efforts to be computer literate	3.27	0.99
19	Had undergone ICT training while in the service	2.12	1.01
20	Inability to undergo private computer training due to excess workload	2.62	1.11
21	School connected to the national grid	2.63	1.12
22	School had functional generating plant	1.35	0.97
23	school has constant power supply	1.55	0.93

Data in Table 1 above shows the result of the study with regards to the level of ICT literacy possesses by the serving teachers, the areas that the teachers require training and the perceived factors that hinder the implementation of the ICT curriculum in the Upper Basic Education programme.

The result of the study showed that the teachers do not possess adequate knowledge to operate computer($\overline{X}$ =2.13 is below average) although the number making personal efforts to become computer literate is above average($\overline{X}$ = 3.27). Also their workload is not an excuse not to undergo private computer training ($\overline{X}$ = 2.62).

Most of the schools do not have computers ($\overline{X}$ = 1.02). but few of the teachers accepted having their personal computers, though the number was below the average (X = 1.02). The teachers accepted making use of internet services, especially the use of e-mails (X = 3.15) but admitted that their schools are not connected to the internet ($\overline{X}$ = 1.25). The teacher's awareness in ICT was above average hence they accepted that they can relate ICT ideas to everybody life ($\overline{X}$ = 2.56) .

The number of schools connected to the National grid was above average (X = 2.63), but with erratic power supply which is a national problem. This system of power could hinder the full operation of ICT. Unfortunately too, the number of schools that have a functional generating plants was below the average($\overline{X}$ = 1.35).

The mean of ICT teachers that had ICT training during their pre-service period fall below the average ($\overline{X}$ = 1.75) and the effort of government to train them while in the service is not adequate($\overline{X}$ =2.12). .

Problems identified as affecting the effective implementation of ICT in the Upper Basic Education therefore include, low level of ICT literacy among the teachers, low level of computer literacy, irregular power supply and government inability to supply schools with the relevant ICT infrastructures.

Discussion

The study was carried out in southern educational zone of Cross River State using a sample size of three hundred and seventy five (375) teachers. The study revealed that the teachers possess low level of computer literacy, and thus cannot use computers in teaching. Also most of the schools do not have computers thus the issue of ICT education is not effective. Infrastructure for teaching/learning are not provided by the stakeholders in education. These findings are in consonance with the finding of Adejoh & Ozoji(2005) that identified low level of ICT literacy among teachers, dearth of technical staff and lack of ICT infrastructures as factors militating against effective utilization of ICT in the teaching and learning process. Ada, Taangaha & Shiaki (2009) found out that 44.04% of the teachers

are computer literate while 55.9% of them are computer illiterate. Also Onwe(2007) in his study found out that in Africa schools are poorly equipped with computers and cited that in Egypt 31.25% of the schools have computers, Ghana 1.43%, Mozambique 0.29%, Gambia 3.94% South Africa 17.36% and Ethiopia 0.037% and concluded that the situation is virtually the same in all developing countries. Esiobu(2010) stated that those factors affecting access and use of ICT in teaching and learning are basically factors associated with underdevelopment and poverty. The case of poverty is very glaring here in Nigeria where workers are poorly paid and the cost of living very expensive.

Eya(2009) opined that the non-inclusion of ICT programme in the teacher training curriculum is the cause of the dearth of ICT teachers in schools. Thus, the professionals in the field of ICT turned out by the few tertiary institutions that offer ICT courses are grossly inadequate to meet with the ICT demands of schools. To make matter worse the teachers on ground are computer illiterate and thus cannot take up the challenge.

Conclusion

The use of ICT in teaching/learning situation cannot be over-emphasized. It can evoke and sustain students' interest thereby facilitating teaching/learning; the problem of managing large classes can be easily checked through the use of ICT and teachers can update their notes through materials obtained from the internet. The application of ICT in education encourages new innovations.

Recommendations

The Nigeria's quest for achieving the Millennium Development Goals (MDGs) may not be so easy without the significant contribution of ICT in the teaching /learning process in her schools. She should therefore move beyond mere policy statement to actual action by providing enough computers in the schools. This situation, if left unchecked could stifle the Nigerian educational goal of capacity building through ICT. To actually achieve the aim of ICT in schools, the paper recommends as follows:

1. ICT education should be incorporated and made compulsory in all teacher education programmes in Nigeria.
2. Government in collaboration with the teachers should make it possible for all teachers to have computers.
3. Schools should be connected to the internet.
4. Adequate / intensive workshop should be organized for the serving teachers on ICT to make them ICT literate.
5. Provision of constant power supply to all institution of learning should be ensure by the government
6. Government should provide adequate fund to school to enable them procure ICT facilities or supply these facilities directly to the schools.
7. Non-governmental bodies and good –spirited individuals should assist in the provision of ICT facilities to schools.
8. Teachers should be encouraged to utilize their leisure time and holiday periods to learn more about ICT and its effective application in a classroom situation.

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