

School Based Computer/Internet Training Needs for Primary School Teachers on Skill Acquisition in Akwa Ibom State of Nigeria

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Abstract

The study was concerned with school based training needs of primary school teachers on computer/internet facilities usage and attainment of educational goals in primary schools in Uyo Local Government Area. A total of ten qualified mathematics teachers were drawn from the five primary schools and a total of hundred primary six pupils in the 2011/2012 session formed the study sample. The instrument used in gathering the data was the primary school teachers' questionnaire (PSTQ) which contains 20 items finding out the influence of internet services on mathematics and teachers' effective utilization of the facilities. Two statistical tools used in testing the two hypotheses were t-test of difference between two means and Pearson product moment correlation coefficient at 0.05 significance level. The result showed that there is no significant difference in mathematics development/ achievement between pupils who are taught by teachers that receive training in internet but denied post training access to computer/internet tools and pupil taught by teachers without internet training. It was found out that there is a significant relationship between the availability of internet facilities in schools and teachers' effective utilization of the facilities. It was recommended amongst others that government should provide computers and internet facilities in schools so as to enhance effective teaching and learning of science and mathematics.

Keywords: Computer, Internet, Training, Teachers, Skills Acquisition

INTRODUCTION

Education is a process aimed at permanent change and overall improvement in general life situations. Since general life situations are dynamic and constantly changing, educational process and the curriculum should similarly be re-adjusted and redefined to meet such changes. To make education more meaningful and realizable, it becomes necessary to use the index of needs analysis to identify and eliminate problems impeding a successful school – based computer and internet training.

In the drive therefore to actualize school based computer/internet training, needs analysis becomes “a veritable tool for a comprehensive curriculum development when it assists a ...community to identify her needs using members of the community, teachers and students” (Dike, 1998). Needs analysis should be the first and foremost important step in any training process and should include all the activities involving information gathering, cognitive abilities of teachers and students' learning needs and desires. Such training process can lead to the acquisition of skills, concepts or attitudes that result in improvement in improved performance within the school systems. For the purpose of this paper therefore, school based training needs is defined to include the need for computer and internet training to be mounted in schools where such facilities are available to enable both teachers and pupils acquire operational and practical experience for sustainable knowledge and learning advancements.

The most interesting and important innovation in education in recent years is the widespread introduction of computers representing powerful tools that can be used both teachers and students for instructional purposes (Salau, 2002). Recent research on learning indicates that computer and internet facilities serve not only as objects of study, but play critical role in changing classroom environments and restructuring classroom to promote effective learning (Borisode, 2002).

Computer makes lessons clear but unfortunately computers are inadequate in many schools. Taylor (2002) observed that there is inadequate supply of computer in schools as a result of government inability to meet the cost of acquiring them. Salman (2000) confirmed that equipment including computer is frequently not available in schools for the teaching of science and mathematics.

Olarewaju (2001) observed that information and communication technology equipments are not put in place by governments in schools. Taylor (2002) confirmed that the provision of facilities including computer in schools would lead to education for sustainable development and with the teaching methodologies.

Oriaifor (2005) asserted that if facilities for internet are put in place in schools, then the aims and objectives of teaching science and mathematics will be achieved. Ezeji (2001) holds that the mere fact that computers are

inadequate in schools discourage many teachers from engaging themselves in pre-teaching assessment and evaluation as stated in the national policy of education (2004). What teachers understand, know and practice have the most important influence on what students learn.

Computer literacy can simply be appreciation in two major exercises. Firstly in the ability for one to cause the computer to “say something” i.e, put out a message which is decoded by the user and secondly, the users’ ability to react to message by instructing the computer on what to do next. Fortunately, through simple observation of the enthusiasm of primary school teachers in their response to mounted computer literacy programmes in schools, there is a genuine desire to update knowledge. Unfortunately, however, this desire seems not to have been satisfied. To address this, the state government and other IT education related stakeholders should be beyond mounted computer and internet training seminars to all important aspect of reinforcement of acquired knowledge. One sure way to effective reinforcement of knowledge is the “Learning on the job” approach. Primary and nursery school teachers who attend seminars in computer training visit established computer schools and some tertiary institutions for this purpose. At the end the seminars, or workshops, they retire to their school classrooms to teach with chalk and dusters.

Career opportunities and individual’s welfare depends on fundamentals skills of reading and writing. “One’s skill in the use of computer and internet services will largely determine one’s value in the workforce” (Ekpo, 2010). Our primary school teachers want enhanced values in the labour market. This has fuelled the need for training of primary school teachers within the school system for enhanced performance.

STATEMENT OF THE PROBLEM

Educational advancements in the third world have continued to keep out of step with what obtains in developed economy. Unfortunately, the developed world will continue to dedicate the pace of teaching and indeed in the rest of the world. Here in Africa, technology and mathematics gradually require computer and internet support. The critical situation according to the (FMOE) Education Sector situation Analysis (2006), is that the use of multi-media and ICT facilities is very limited in primary schools despite the fact that the primary school intended curriculum suggests a more activity – based approach in teaching science and mathematics.

Since the ICT facilities are either non-existent in most primary schools and extremely scanty in very few primary schools, the numerous twice yearly mounted seminars/workshops by NTI, Kaduna under the Millennium Development Goal’s Project (MGDs) may have failed to create meaningful impact. Even workshop participating primary school teachers complained that non availability of ICT materials in their schools deters effective ICT teaching of the pupils.

Following these, the researchers worry and concern produced a very pertinent question like: can periodically mounted internet and computer workshops attended by primary school teachers enhance teachers’ teaching skills and productivity even though those facilities are not available in their schools?

PURPOSE OF THE STUDY

The study aims at finding out the school based training needs of primary schools teachers on computer/internet facilities usage for attainment of educational goals in Akwa Ibom State. It is hoped that the outcome of this study will help government to select the best training needs that will enhance pupil’s achievement in science and mathematics in primary schools in Uyo Local Government Area.

RESEARCH HYPOTHESES

The following hypotheses are formulated to guide the study:

- i) There is no significant difference between pupils who are taught by teachers who undergo training on computer/internet and pupils taught by teachers who do not undergo training on computer/internet in reference to mathematics achievement.
- ii) There is no significant relationship between the availability of computer and internet facilities in schools and teachers’ effective usage.

METHODOLOGY

The research was conducted in all primary schools in Uyo Local Government Area, Akwa Ibom State. Out of 47 schools in Uyo Local Government Area, five primary schools met the following criteria, namely:

- i) Schools that have always presented candidates for primary six/ placement examination for the past 20 years.
- ii) Schools that have well qualified science and mathematics teachers.
- iii) Schools that have pupils’ population of not below 500.
- iv) Schools that present teachers for computer and internet re-training of primary school teachers on (MDGs) project August 2010.

A total of 10 mathematics teachers were drawn from the five schools and a total of 100 senior primary pupils

formed the study sample. The instrument used in gathering data was the primary schools teachers' questionnaire (PSTQ) which contains 20 items to find out the influence of internet services on the achievement of primary school pupils in science and mathematics. The questionnaire also attempted to ascertain the effectiveness in the utilization of computer/internet services if at all they are provided in schools. Pupil's performance were obtained from third term examination result booklet. The instruments were face and content validated by a team of experts in education. At the end of the administration of the questionnaire, pupils' result in mathematics taught by 10 teachers were also collected for purpose of analysis.

ANALYSIS

The data collected are analysed under the following headings/tables:

- i) T-test comparison of mean performance of pupils who are taught by teachers that had undergone computer/internet training and those taught by teachers without computer/inter training in reference to mathematics achievement.
- ii) Testing whether there is any significant relationship between the non-availability of computer and internet facilities in schools and teachers effective utilization.

HYPOTHESIS I

There is no significant difference pupils who are taught by teachers who undergo training on computer/internet and pupils taught by teachers who do not undergo training on computer/internet in reference to mathematics achievement.

Table 1: T-test (independent) comparison of mean performance of pupils who were taught by teachers that had undergone computer /internet training and pupils taught by teachers without internet training in terms of mathematics achievement.

Group of Pupils	N	X	SD	df	t-cal	t-crit	Decision at P < 0.05
Pupils taught by teachers who received computer/ internet training, denied post training access to tools	52	4.3	2.65	98	0.43	1.67	Not significant
Mathematics achievement	48	4.1	2.04				

Table 1 shows that the calculated t-value (0.43) is less than the t-critical (1.67) with 98 degrees of freedom at 0.05 level of significance. The null hypothesis is retained. Hence, there is no significance in mathematics achievement between pupils who are taught by teachers that received computer/internet training but denied further post training access to tools and pupils taught by teachers without internet training.

Hypothesis 2

There is no significant relationship between the availability of computer and internet facilities in schools and teachers' effective usage.

Table 2: Pearson Product Moment Correlation analysis showing the significant relationship between the availability of computer/ internet facilities in schools and teachers effective utilization.

Variables	$\sum x^1$	$\sum x^2$	$\sum xy$	r_{xycal}	r_{xycrit}	Decision at P < 0.05
	$\sum y^1$	$\sum x^2$				
Availability of computer/internet facilities (x)	2000	70138	75680	0.52	0.196	Significant
Teachers' effective utilization (y)	5934	570714				

Table 2 shows that the calculated rxy value (0.52) is greater than the critical rxy value (0.196) at 0.05 significant level. Hence the null hypothesis is rejected. Table 2 reveals that there is a significant relationship between the availability of internet facilities in schools and teachers' effective utilization of the facilities.

DISCUSSION OF RESULTS

The result shows that there is no significant difference in mathematics achievement between pupils who are taught by teachers that received internet training and denied post training access to tools and pupils taught by teachers without internet training. The result is in support of Eguabor (2000) who confirmed that internet facilities including computers are not available in schools for the teaching of science and mathematics. This results is also in support of Oriafio (2005) who asserted that if facilities for internet are put in place in schools,

then the aims and objectives of teaching science and mathematics will be achieved.

Moreover, there exists a significant relationship between the availability between the availability of internet facilities in schools and teachers' effective utilization of the facilities. This result is in support of Taylor (2002) who confirmed that the provision of internet facilities including computers in schools would lead to education for sustainable development and with the teaching methodologies. The result is also in support of Borisode (2002) who discovered that internet facilities serve not only as objects of study, but play critical role in changing classroom environments and restructuring classroom to promote effective learning. Similarly, Ekpo (2010) supports that one's skill in the use of computer and internet services will largely determine one's value in the workforce.

SUMMARY

The study was concerned with school based training needs of primary school teachers on computer/internet facilities usage and attainment of mathematics educational goals in Uyo Urban in Akwa Ibom State. A total of ten qualified mathematics teachers were drawn from the primary schools and a total of hundred primary six pupils in the 2011/2012 session formed the study sample. The instrument used in gathering the data was the primary school teachers' questionnaire (PSTQ) which contains 20 items finding out the influence of internet services primary schools pupils' achievement in mathematics and teachers' effective utilization of the facilities. Two hypotheses were formulated to guide the study. Statistical tools used in testing the two hypotheses were t-test of difference between two means and pearson product moment correlation coefficient at 0.05 significance level. The result showed that there is no significant difference in mathematics development/achievement between pupils who are taught by teachers that receive training in internet but denied post training access to computer/internet tools and pupil taught by teachers without internet training. It was found out that there is a significant relationship between the availability of internet facilities in schools and teachers' effective utilization of the facilities.

CONCLUSION

From the study, it was discovered that there is no significant difference in mathematics achievement between pupils who are taught by teachers that received internet training but denied post training access to tools and pupils taught by teachers without internet training. It was also found that there exists a significant relationship between the availability between the availability of internet facilities in schools and teachers' effective utilization of the facilities. A knowledge of some form of basic mathematics science and technology whether formal or informal is unavoidable in everyone's day to day life's activities, yet a whole lot of pupils are scared of mathematics even before entering secondary school.

We are part and parcel of this global village, namely the world, which is changing so rapidly especially in educational and internet development. We cannot afford to look the other way when global village, namely the world, which is changing so rapidly especially in educational and internet development. We cannot afford to look the other way when global attention and concentration is focused on development of and exploits in the computers and internet through mathematics basic science and technology. There is urgent need for primary school teachers to strife for and gain knowledge and proficiency in computers and internet mastery and usage to enable them teach their pupils to belong and thrive in today's world.

RECOMMENDATION

With regards to the research findings, the following recommendations were considered necessary:

- 1) The government should provide computers and internet facilities in schools so as to enhance the effective teaching and learning of science and mathematics.
- 2) Expert computer/internet analysts should be deployed to schools to help reinforce primary school teacher's post workshops and seminar teaching and learning experiences.
- 3) Training and retraining of primary school teachers on computer and internet services should be intensified until such time the government can provide these facilities in all the schools to enable teachers keep in tune with operational proficiency and mastery of the computer and internet and development in skills all to the benefit of the learners (pupils).
- 4) Securities should be strengthened in our schools before computers are released to them. Computer/internet laboratories or stores should be provided in all such schools.
- 5) Philanthropies organizations should also help the government by donating computers and internet facilities to schools.
- 6) School authorities should introduce "excellence awards" to encourage pupils and teachers develop keen interest and excel in performance in computer/internet related courses in school.
- 7) School curricula should be adjusted to heighten emphasis on computer /internet studies in primary schools.

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