



Skill Acquisition and ICT for Primary Education in Nigeria

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Abstract

The use of ICT to acquire skills for various educational purposes in Nigeria is very prevalent. Consequently, this study identified the problem of reading among primary schools in Nigeria as a major educational problem. Accordingly, the study set out to search for the necessary ICT skills to help people in reading. Four primary schools in Nigeria, specifically two schools in Cross River State and two schools in Imo State constituted the study area, producing a population of 2100 primary six pupils of which 250 pupils made up the sample. Questionnaire was constructed and administered on respondents. Pearson Product Moment Correlation Analysis was used to measure the strength of the relationship between the ICT skills and pupils' reading ability, having formulated and considered two null hypotheses that (1) there is no significant relationship between acquisition of ICT skills by pupils and their reading ability (2) there is no significant relationship between availability of Microsoft Encarta kids and pupils' reading ability. The hypotheses were tested at 0.05 level of significance leading to the following findings: (1) The pupils excitedly acquired the skill of using Microsoft Encarta Kids (ICT) for reading. (2) With the excitement and the acquired skill, 65% of the pupils showed improvement in their reading ability. (3) 35% of the pupils hesitated to acquire the ICT skills because the Microsoft Encarta Kids looked strange. (4) Persistent and continuous use of Microsoft Encarta Kids in reading practice showed great improvement in the pupils' reading ability. Conclusion was drawn and recommendations were made that pupils should be exposed to more Microsoft computer softwares to enable them acquire more skills in the use of ICT for reading. It will help pupils read more and faster. The schools should procure more ICT softwares to afford pupils more accessibility and opportunity for practicing reading.

1. Introduction

The use of computer is so prevalent in contemporary Nigeria that any educational programme or course of study in the country's educational institutions must embrace computers to remain viable (Duruamaku-Dim, 2005). This statement is strikingly appropriate for primary education which is the first level of formal education where it is important to lay solid and strong foundation for children. In view of this, Akudolu (2001) proposes the introduction of elementary school information communication technology education in Nigerian school system as an integrator or synthesizer of curriculum.

ICT deals with the use of electronic computers and computer software to convert, store, protect, process, transmit, and securely retrieve information. A teacher who is implementing a technologically integrated curriculum plays the role of a facilitator. The Microsoft Encarta Kids is one of such software programmes that are useful tools which aid reading among children in primary schools.

2. The Study Problem

There is an inherent problem of distractions when pupils read in a non-automated setting because they would have to get up from their reading desk in search of one reference material or the other.



3. Research Methodology

This study adopted correlational and Ex-post facto design which is the “systematic empirical enquiry in which the researcher does not have direct control of independent variables because their manifestations have already occurred or because they are inherently not manipulable” (Kelinger, 1973).

It is correlational because it deals with the investigation of the relationship between two or more variables.

With its focus on the relationship between the acquisition of ICT skills and reading in primary schools in Nigeria, it identified four primary schools in Nigeria, specifically two schools in Cross River State and two in Imo State which produced the study population of 2100 primary six pupils, who had earlier gained or acquired experience in the use of Microsoft Encarta Kids. The sample of 250 primary six pupils was drawn from the population.

Literature was reviewed and questionnaire constructed and administered on respondents to gather data for analysis of the work. The statistical tool of Pearson Product Moment Correlation Analysis was used to measure the strength of the relationship between the ICT skills acquired by the pupils and their reading ability. The following two null hypotheses were formulated and considered, that:

- (1) there is no significant relationship between acquisition of ICT skills by pupils and their reading ability.
- (2) there is no significant relationship between availability of Microsoft Encarta Kids and pupils' reading ability.

4. The Literature

Review of literature was carried out under the following subheadings:

- Primary Education in Nigeria
- ICT/Microsoft Encarta Kids and its uses by pupils in reading

4.1 Primary Education in Nigeria

The concept of primary education has been universally and variously defined but of particular interest to this study is “the definition that primary education is the form of education which is properly planned and systematically tailored and applied in an institution for children aged normally 6 to 11 + (Okeke, 1993: 11 citing Piaget, 1952).

The development of primary education in the country traversed several decades with different commissions which came up with various progressive objectives leading to the present National Policy on Education. The policy highlights the necessary innovation in the education system which include “introduction of Information and Communication Technology in the school system” (NPE, 2004).

4.2 ICT/Microsoft Encarta Kids and Its Uses by Pupils in Reading

The Encarta is the most comprehensive, Pc-oriented reference experience. More so, Microsoft Encarta is the trademark for Microsoft interactive educational software.

According to by Bill Gates (1997), there are regional versions of Microsoft Encarta to take care of the needs of people in different regions of the world. In this consideration, language is a special determining factor. Microsoft has published many educational interactive Compact Discs (CDs) in various languages including English, German, French, Spanish, Dutch, Italian, Portuguese and Japanese.

The variations in languages help the pupils in the learning process because of the indigenous language advantage. Some localized versions of Microsoft Encarta are so customized to reflect contents licensed from available national sources. (Kertzer, 2009).



The visual browser interface used in Encarta Kids offers elementary school-age children so many exciting opportunities of instant educational information onscreen. Encarta makes it easier and more enjoyable for kids to get all the information that will aid their reading by a simple click. Microsoft Encarta is the pupils reading companion because of its interactive features. (Cohen, 2009)

The Encarta caters effectively to the educational needs of every one in the family, from children as young as 5 to 6 years to adults who seek concise answer to their queries. As a matter of emphasis, it is fun filled, interactive, and colourful. Particularly enchanting is the aforementioned Encarta Kids interface, an area populated with interactive quizzes, pictures, large icons, hundreds of articles, and links to the full version of the Encarta. Primary school pupils are happy to be home because they easily get along with their homework. Quick starters and pop-up toolbars guide the pupils while they navigate through. (McDougall, 2009)

5. Data Collection

The researchers did the actual administration of the instrument personally but solicited and got the assistance of reliable teachers in some schools to assist in the distribution of the questionnaire and collection of the responses. The researchers first sought permission from the head teachers as well as class teachers of the sampled research subjects before administering the questionnaire.

Some problems were encountered in the process of data collection. Teachers in some schools were reluctant to allow their pupils to be used as they claimed that the exercise was taking the pupils' study time. However, the pupils maintained interest and continued because it was the first time they had such experience.

6. Data Preparation and Scoring

A scoring key was developed by the researchers in which all information received from the subjects were coded for analysis. The scoring was done based on how the questionnaire was structured.

Positively worded items were scored 4 for Strongly agreed, 3 for Agreed, 2 for Disagreed, one for Strongly disagreed using four Likert-type items.

7. Data Analysis

Here each hypothesis was subjected to statistical analysis. In each case the hypothesis was stated in the null form. This was followed by an interpretation of the results.

7.1 Hypothesis One

There is no significant relationship between acquisition of ICT skills by pupils and their reading ability. To test this hypothesis, the variables were analyzed using Pearson Product Moment Correlation Analysis. The result is presented in Table I below:

Table 1: Pearson Product Moment Correlation Analysis of the Relationship between Acquisition of ICT Skills by Pupils and their Reading Ability
(n = 250)

Variables	$\sum x$	$\sum x^2$	$\sum xy$	r
	$\sum y$	$\sum y^2$		
ICT Skills Acquisition	1413	2012	6508	0.55*



Reading ability 1207 2357

***Significant at 0.05 level; df = 248; critical r = 0.14**

The data in table 1 reveals that there is a significant relationship between the acquisition of ICT skills by pupils and their reading ability because the critical r of 0.14 is lower than the calculated r of 0.55. With this result, the null hypothesis is rejected.

7.2 Hypothesis Two

There is no significant relationship between availability of Microsoft Encarta Kids and pupils' reading ability. To test this hypothesis, the variables were analyzed using Pearson Product Moment Correlation Analysis.

The result is presented in Table 2 below:

Table 2: Pearson Product Moment Correlation Analysis of the Relationship between Availability of Microsoft Encarta Kids and Pupils' Reading Ability
(n = 250)

Variables	Σx	Σx^2	Σxy	r
	Σy	Σy^2		
Microsoft Encarta Kids	1683	2115		
			8489	0.73*
Reading ability	1897	2873		

***Significant at 0.05 level; df = 248; critical r = 0.29**

The data in table 2 reveals that there is a significant relationship between the availability of Microsoft Encarta Kids and pupils' reading ability because the critical r of 0.29 is lower than the calculated r of 0.73. With this result, the null hypothesis is rejected.

8. Discussion of results and findings

The data analysis has produced the following results and findings:

- The pupils excitedly acquired the skill of using Microsoft Encarta Kids (ICT) for reading.
- With the excitement and the acquired skill, most of the pupils showed improvement in their reading ability.
- Few of the pupils hesitated to acquire the ICT skills because the Microsoft Encarta Kids looked strange.
- Persistent and continuous use of Microsoft Encarta Kids in reading practice showed great improvement in the pupils' reading ability.

9. Conclusion

This study highlighted key issues involved in the appreciation and analysis of skill acquisition and ICT for primary education. The topic was timely in view of the role ICT is playing in education in Nigeria



especially in primary schools typified by the experience of primary schools in Cross River State and Imo State. Reading has been an important subject area which all state governments of Nigeria have been emphasizing. Undoubtedly, ICT plays significant role in helping pupils acquire skills in reading exemplified by the use of Microsoft Encarta Kids.

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