

An Empirical Review of the Integration of Information Communication Technology (ICT) Into the Pedagogy of Early Childhood Education in Jos, Plateau State, Nigeria

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ABSTRACT

This paper examined the integration of Information Communication Technology into pedagogy of early childhood education in Jos – Plateau State Nigeria. The main purpose of the paper is to examine to what extent Information Communication Technology is used in early childhood education and its impact on children's learning. A sample of 150 nursery school teachers was used for the study and the questionnaire was used for the purpose of data collection. The data collected was subjected to critical analysis through the use of simple percentages. From the findings of the study, conclusion was drawn and recommendations were made.

Keywords: Information Communication Technology, pedagogy, early childhood education

INTRODUCTION

Information and Communication Technologies (ICT) have become key tools and had a revolutionary impact of how we see the world and how we live. This phenomenon has given birth to the contemporary e-commerce, e-government, e-medicine and e-education. ICT is having a revolutionary impact on educational methodology globally. However, this revolution is not widespread and needs to be strengthened to reach a large percentage of the population. What are the success factors in existing e-education programs and how can they replicated? What are inhibitors that prevent this revolution from becoming widespread and comprehensive in its social and economic impact? All stakeholders have a role to play must insist on the best standards and approaches to ensure effective ICT for education service delivery in institutions of learning. The key assertion of this paper is to investigate the integration of ICT into the pedagogy of early childhood education in Jos – Plateau State Nigeria. There is a growing recognition of the many different ways that ICT can contribute to, or transform, the activities, roles, and relationships experienced by children and adults in early childhood education settings. The future of a nation's socio-economic and political wellbeing lies with the quality of children's education because they are the future leaders. If they have a shaky foundation when it comes to education, it will surely affect their lives when they are adults and in turn affect the nation. Many children in Nigeria and Africa have no opportunity to experience the much needed early childhood education. Why? Some at early stage have to help cater for the need of the family.

The early years, from birth to five years of age, are an important time in any child's life. Children go through a huge variety of learning stages during this time, making great steps, and what they learn at a young age offers an important foundation for their learning in later life. The learning process starts from home and then moved to the school and its responsibility lies upon the parents who are at home and the teachers who teach them in

school. The importance of early childhood education cannot be overemphasized. Speaking at a 1-day stakeholder's meeting on the Dissemination of Pre-service and In-service Report for Early Childhood Development recently, the Gbagi (2010) stressed the importance of child education and stated that if not tackled, the standard of education in Nigeria will continue to dwindle because it forms the basis of how the children turn out in the future. He added that government has been doing everything in its power to find the solution to the problem of the sudden decline of education in the country.

"It will interest you to note that months back, one of the things the president discussed was to look into the issue of education and why suddenly the country has taken a back role when it comes to it. You can recall that years back, Nigerians had favorable contest in exams with their counterparts anywhere in the world and came out with flying colors." He further stated that the duties and responsibility of molding the children was partly for the teachers and partly for the parents at home and lamented that as a result of the search for excessive wealth, parents have left these responsibilities to their house-helpers which he said was appalling. The ability of existing educational approaches to impart knowledge, skills and values appropriate to a rapidly changing world has been questioned by educationists, researchers as well as employers (Cunningham, 2008). Such concerns are stimulating a growth in the application of educational technology and hence need to be addressed. Information and Communication Technology (ICT) skills play a key role in promoting economic development of a country. Many of the productivity gains in the developed world economies over the past two decades are attributable to the impact of I.C.Ts, especially computers. Information and Communication Technology have a direct role to play in education and if appropriately used, can bring many benefits to the education sector (Bagudu, 2001, 2005). For instance, it provides new opportunities for teaching and learning including offering opportunity for more student centered teaching, opportunity to reach more learners, greater opportunity for teacher-to-teacher and student-to-student communication and collaboration, greater opportunities for multiple technologies delivered by teachers, creating motivation in learning amongst students and offering access to a wider range of courses. The computer has been identified as the most efficient 'stand-alone' technology that is able to make teaching and learning situations more meaningful and fruitful than it has ever been before (Wabuyele, 2006).

Many nursery schools face escalating demands on access to finite computer resources, including computer suites, and, lack of access at required times often discourage early childhood departments from using computers. There are also relatively few opportunities for continuing professional development in the use of computers in early childhood education. In many schools, weaknesses in early childhood education are associated with limitations in the use of computer technology and strategic management of cross-curricular ICTs (Egbule, 2000). Good teaching ought to be based on clear expectations of geographical outcomes, with good preparation and planning which provide a number of linked activities to maintain pace and children's interest.

STATEMENT OF THE PROBLEM

In Nigeria and other developing countries, there is currently limited inclusion of real-world learning experiences in the traditional classroom setting (Kinuthia, 2009). Mostly, the content presented in the classroom is disconnected from its real world context. This contextual dichotomy tended to have a negative impact on the learning process, adversely affecting learner motivation in particular. At the same time, real-world learning situated in real world contexts has been shown to have positive impacts on learning and learner motivation (Papastergiou, 2009). Educational simulations have been found to provide a solution to this by providing some aspects of real-world learning in the traditional classroom. Therefore, this

study sought to address the mismatch identified herein that even though computer simulations have been proved to have a positive impact on learners' performance, not many educators use them in teaching and learning innovatively. Likewise, in the few cases where they are used, they are mainly in the developed economies, emphasis being in science oriented subjects. Also, none of the approaches incorporate simulations with traditional teaching and learning methodologies.

Over the last decade, there has been a rapid growth in the range and sophistication of new I.C.T.s (such as radio, video, television and so on) in teaching and learning early childhood within the developing countries. In particular, computer technology has been used to improve the quality of early childhood education in schools because of its robust nature in displaying graphics and simulations (Castleford, 2008). Positive outcomes of using technology in education have led many governments to initiate programs for the integration of technology into schools.

RESEARCH QUESTIONS

The following research questions are formulated to facilitate the findings of this research study.

1. To what extent are Information Communication Technology (ICT) inculcated into the pedagogy of early childhood in Jos metropolis?
2. What impact does Information Communication Technology (ICT) facilities have on the pedagogy of early childhood education in Jos metropolis?

SIGNIFICANCE OF THE STUDY

This research study is of great benefit to teachers, scholars, researchers and the general public.

This study revealed the impact of using of ICT facilities in the pedagogy of early childhood to teachers and also explained how the utilization of Information Communication Technology (ICT) in the pedagogy of early childhood can help enhance children's learning in preprimary schools.

Furthermore, this paper shall serve as vital source of information for scholars and reference point for future researchers in the field of early childhood education. The findings of this study will also serve as source of enlightenment for any member of the public interested in knowing more about the integration Information Communication Technology in the pedagogy of early childhood education.

RESEARCH METHODOLOGY

Design of the Study

The design for this research is the survey research design. As a descriptive survey research, this design requires the researcher to select a group of respondents and collect information from them. The information was collected from those selected from the larger population for the purpose of the study. The researcher's choice of a descriptive survey research design is because it fits into the pattern of the research and it allows accurate information to be collected about a large population from a small sample.

Population and Sample for the Study

The population for this study comprises of all the teachers pre-primary schools in Jos metropolis. There are a total of twenty-five (25) registered preprimary schools in Jos

metropolis with a population of 750 teachers. The sample for the study consists of 25% of the population which is 150 teachers.

Sampling Technique

In drawing the sample of respondents for the research, the researcher made use of the simple random sampling technique.

Instrument for Data Collection

The instrument used in this research for the purpose of data collection is the questionnaire. It was designed by the researcher to collect information from the respondents.

Method of Data Analysis

The data collected in this research was subjected to analysis through the use of simple percentages.

DATA PRESENTATION & RESULTS

Research Question One: To what extent are Information Communication Technology (ICT) facilities integrated into the pedagogy of early childhood education in Jos metropolis?

Table 1. Inculcation of ICT into the pedagogy of early childhood education in Jos metropolis

<i>S/N</i>	<i>Item</i>	<i>Agree</i>	<i>%</i>	<i>Disagree</i>	<i>%</i>
1	There are ICT facilities in my school	70	46.7%	80	53.3%
2	ICT facilities are used in the teaching and learning of early childhood in my school	55	36.7%	95	63.3%

The table above 70 respondents representing 46.7% agreed that there are ICT facilities in their school while 80 respondents representing 53.3% disagreed. 55 respondents representing 36.7% agreed that ICT facilities are used in the teaching and learning of early childhood in their schools while 95 respondents representing 63.3% disagreed.

Research Question Two: What impact does Information Communication Technology (ICT) facilities have on the pedagogy of early childhood education in Jos metropolis?

Table 2. Impact of ICT facilities on the pedagogy early childhood education in Jos metropolis

<i>S/N</i>	<i>Item</i>	<i>Agree</i>	<i>%</i>	<i>Disagree</i>	<i>%</i>
1	Use of ICT facilities to teach help children to understand what they are taught better	98	65.3%	52	34.4%
2	Use of ICT facilities to teach helps to generate children's interest in learning	80	53.3%	70	46.7%
3	Inculcating ICT facilities in teaching helps to capture children's attention	95	63.3%	55	36.7%

The table above shows that 98 respondents representing 65.3% agreed that use of ICT facilities to teach helps children to understand what they are taught better while 52 respondents representing 34.4% disagreed. 80 respondents representing 53.3% agreed that use of ICT facilities to teach helps to generate children's interest in learning while 70 respondents representing 46.7% disagreed. 95 respondents representing 63.3% agreed that

inculcating ICT into teaching helps to capture children's attention while 55 respondents representing 36.7% disagreed

DISCUSSION OF FINDINGS

Research question one on the extent to which Information Communication Technology (ICT) is integrated into the pedagogy of early childhood education in Jos metropolis is analyzed. From the analysis of data collected, it is discovered that only few teachers (55, 36.7%) use ICT facilities to teach children in pre-primary schools.

Research question two on the impact of Information Communication Technology (ICT) on the pedagogy of early childhood education in Jos metropolis is analyzed. From the analysis of data collected, it is discovered that utilization of ICT facilities to teach help children to understand what they are taught better, it helps to generate children's interest in learning and capture children's attention.

CONCLUSION

The ability of existing educational approaches to impart knowledge, skills and values appropriate to a rapidly changing world has been questioned by educationists, researchers as well as employers. Such concerns are stimulating a growth in the application of educational technology and hence need to be addressed. Information and Communication Technology (ICT) skills play a key role in promoting economic development of a country. Many of the productivity gains in the developed world economies over the past two decades are attributable to the impact of I.C.Ts, especially computers. Information and Communication Technology have a direct role to play in education and if appropriately used, can bring many benefits to the education sector. For instance, it provides new opportunities for teaching and learning including offering opportunity for more student centered teaching, opportunity to reach more learners, greater opportunity for teacher-to-teacher and student-to-student communication and collaboration, greater opportunities for multiple technologies delivered by teachers, creating motivation in learning amongst students and offering access to a wider range of courses.

From the findings of this research, it is concluded that Information Communication Technology (ICT) has positive impact on the pedagogy of early childhood as it help children to understand what they are taught better, it helps to generate children's interest in learning and capture children's attention.

RECOMMENDATIONS

Based on the findings of this study, the following recommendations were made:

1. Basic ICT facilities such as computers and other electronic media should be provided in schools in Nigeria to facilitate teaching and learning.
2. Teachers should be trained on how they can adequately put ICT facilities into proper use in the pedagogy of early childhood education.
3. Only qualified and competent teachers in the field of Early childhood should be recruited to teach in preprimary schools.

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Research Questionnaire

Instruction: Please tick (√) where appropriate

S/N	Item	Agreed	Disagreed
1	There are ICT facilities in my school.		
2	ICT facilities are used in the teaching and learning of early childhood in my school.		
3	Use of ICT facilities to teach help children to understand what they are taught better.		
4	Use of ICT facilities to teach helps to generate children's interest in learning.		
5	Inculcating ICT facilities in teaching helps to capture children's attention		