

PLANNING AND MANAGEMENT AS INTEGRATED APPROACHES TO TEACHING AND LEARNING IN UNIVERSAL BASIC EDUCATION THROUGH INFORMATION AND COMMUNICATION TECHNOLOGY IN CONNECTING THEORY TO PRACTICAL IN DIGITAL AGE

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Abstract:

Information and communication technology (ICT) is a critical factor in reshaping and repositioning the education system in this competitive society globally most especially in the early stage of education to help a child group and adoptive to the changes in the society to enable the child fit in the application of ICT has brought speedy revolution any changes in education system and pedagogical practices all over the universe. It is therefore the aspiration of every government for integrate sound an approaches to ICT in all levels of the educational system. The study is to investigate the integrated approaches to learning in early childhood education in promoting the use of modern ICT in school programmes and activities also the approaches adopted by head teachers and teachers to integrate the new technology in instructional delivery. The study descriptive survey and guided by 3 research questions study-eight (88) head teachers and 880 teachers were selected from the population of 251 head teachers and 41874 teachers made up the subjects for the study. A questionnaires constructed by the researcher and organize according to the research questions was used to gather data for the study. The data gathered were analysed using mean and grand mean the findings of the study revealed low integrated approaches promotion of ICT in early childhood education. The level of integrated of ICT in structural delivery was also found to be very low.

Keywords: Planning, Management, Integrated, Teaching, Learning and Practical

Introduction

Education can be described as the process in its entirety through which children, young or even adults are helped to cultivate and grow their abilities, attitude, values and other forms of behavioural attributes that represent positive value aimed at changing the individual to enable him/her contribute to the well-being of himself/herself, others and of course the society at large (Amadioha and Akor in Amadioha and Oforka, 2019). Teaching / learning globally good care and quality integrated early year's education for children has been emphasized. This quality education is emphasized because of research evidence that the experiences a child acquires in these early yeas determine how well he/she will be able to face challenges of growing up. Thus, these experiences affect the physical growth, intelligence personality and how the child interacts with others. There is the belief that early childhood education can give children a better chance of escaping "Poverty Curse" and benefit from later education be more productive, healthy, law abiding, reduce the cost of medical care and education (UNESCO, 2010, UNICEF, 1999).

It is pertinent to note that the future education of children depends on quality of formal and informal education received in their early years. Basic education is the foundational educational level. This may also by implication be seen and perceived as the most fundamental education that is given to people (Kanno and Onyeachu (2015). Similarly Nwana (2002) viewed basic education as the base-line education on which all other educational advancement depend. The basic education is like the foundation of a building on which all other loads for the building come. These same foundational

educations from inference determine the stability of the entire educational building that anyone can ever have. Hence basic education is to a large extent what determines the success or failure of all other stages of education that may come of it (Amadioha et al, 2019). Thus, it becomes imperative to make this educational level functional to produce results worthy of the effort in-putted by the implementers in Nigeria in conformity with global practices.

The UBE education process was reinforced with the call for education for all which began in 1988 after a world assessment result for primary education across the world showed that countries of the world were lacking behind in giving their people basic education needed for survival and life sustenance, therefore, the declaration of Education for All (EFA) is Jomtien Thailand, a declaration and framework for action on Education for All in 1990.

National Policy on Education which is to achieve the goals of Education for All through the following objectives of the UBE programme;

- Develop permanent literacy and numeracy, and ability to communicate effectively.
- Lay a strong foundation base for scientific and reflective thinking.
- Give citizenship education as a ground for effective participation and contribution to social life.
- Mold character and bind sound attitude and morals in the child.
- Develop in the child the ability to adapt to the child's environment.
- Give the child opportunities for developing manipulative skills that will enable the child to function effectively in the society within the limits of the child's capacity.
- Provide the child with basic tools for further educational advancement including preparation for trades and crafts of the locality.

The major essence of the UBE programme from the stated objectives and possibly its effective and proper implementation of the intents is to ensure that each child is built up with marketable skills that would enhance self employment as well as reduce the dependence on paper qualification (Fowowe, Akinkuotu and Shittu, 2009). However, the basic features of the UBE programme include;

- a. Free formal basic education
- b. Compulsory, uninterrupted nine years of primary and junior secondary school education.
- c. Emphasis on curriculum diversification and relevance to effectively and adequately cover individual and community needs aspirations.
- d. Disarticulation of junior secondary schools from senior secondary schools.
- e. Introduction of rudiments of literacy
- f. Community ownership of schools including participation in decision-making process in schools.

Maduewesi (2005) reinstated, what we need is an expanded vision that surpass existing resource levels, institutional structure, curricular and conventional delivery system. Evidence shows that early childhood education has positive effect on educational development of children in later years and that investing in it yields positive returns (Barnet, 2006 Rolwick & Grendel, 2003, UNESCO, 2010). For this new approach to effective this changing word emphasis on ICT is very world is moving with a terrific speed in the use of ICT that only nation that are committed in the use of ICT will compete in today's global market. The 21st century learner has

been describe as the next generation learner or digital native, because of their formal access to computer enable technology. They play video-game, watch television send text messages and e-mails and pay little or no attention to reading their book.(Obiefuna etal, 2012).

Rodgers, Rungo, Starregt and Holzan (2006) in Alike *etal* (2012) where equally of the view that complaints were no solution to problems but addressing the problems by finding adequate solution them. The authors noted that children born from 1982 have different relationship with information and learning than children to previous years and as such pedagogical skills/approaches for non-digital natives may no longer be relevant awareness of computer in Nigeria enables technology and the use of information communication technology (ICT) to spread like wild fire. Children and youth have access to computer outfits located in all nooks and crannies in the urban setting. The impact of ICT in teaching and learning has proven to be a big and better asset in the education industry. The National Policy on Education (NPE, 2004) maintained that “Government shall provide facilities and infrastructure for the promotion of ICT at all levels”. Studies from countries such as Singapore, Thailand, Indonesia, Malaysia and Philippines according to UNESCO Bangkok (2004) reports revealed that ICT tools have helped to improve greater autonomy in learning, stimulate learners sensory and competitive curiosity, develop life skills, boost self-confidence and facilitate the learning of abstract ideas and theory. The use of computer in education according to Jung (2005) can be more efficient, it can provide better learning results and it can be made adaptive to the individual learner. But also important is the fact that it can be fun to learn with computer. Furthermore, skills like collaboration, critical evaluation, receiving feedback, planning and organization can be learned.

According to Haddad (2002) teach nor not to teach education is not the question, the question is how to harvest the power of ICTs to make education more relevant, responsible and effective for school setting and lifelong learning. It is believed that when science educational the preschool level uses ICT (Information and Communication Technologies) it emphasizes active learning and is expected to promote higher student motivation than what occurs in traditional classroom settings with teacher oriented learning. In fact, studies have related the appropriate use to computers with the ability of students to understand more efficiently the different mathematics notions (Dunham & Dick, 1994 Groves, 1994, Offem 2014). It is also known that children learn faster in an interactively functioning learning environment. To Zaranis and Oikonomidis (2009) in Offem (2014). This is also probably the most important advantages of ICT use in the teaching process over the tradition teaching. In addition, the use of computers as a teaching tool allows children to learn at their own individual pace. This implies that up achieving one level of knowledge, they can proceed to the next, which is not the case in traditional teaching. It is important, therefore, to think to planning and building in different activities related to science and technology even from early childhood.

The National Policy of Education (FGN, 2004) stipulates that the purpose of the pre-primary education including among other teaching the rudiments of numbers, letters, colours shapes, forms, etc., through play.

In education, ICT is both a school subject and tool which supports teaching and learning through the use of ICT resources. The resources include computers, computer laboratories, online library and virtual classrooms, videophone systems and teleconferencing devices, educational robots, multimedia projectors and multimedia course ware namely: CD-ROM, slides flash drives and diskettes (Feldman 1987, Haag & Keen, 1996: Chisenga; 1999; Burton; 2001, Clarck, 2006 Collins, 2008 and Nwana, 2008, Umoren 2006). The Work Bank Development Report on ICT (2003) stated that, ICT consist of hardware software, networks and media for the collection, storage, processing, transmission and presentation of information. The National Policy on Education (2004) recognizes ICT as product of technological change and as an innovation in Education. The Federal Government of Nigeria in the National Policy on Education (FRN, 2004). Introduced ICT, 'Computer Education' as a subject of study in the school curriculum. It is to be done at all levels of education viz Nursery, Primary Secondary and Tertiary education. By implication, the teacher should be a computer learner (Nwana, 2012). He further pointed out that computer literacy involves operating a computer on daily basis to solve problems or perform task, browsing the internet and using e-mail reading computer pamphlet, textbooks, journal and magazines, discussing computer with friends joining computer clubs and associations, attending computer conferences seminars, workshops, computer hardware exhibitions.

The Department of Trade and Industry (1991) processing, in Offem (2014) defined ICT as the ac acquisition, acquisition, processing storage and dissemination of vocal, pictorial, textual and numeric information by a micro-electronic based combination of computing and telecommunication. The importance of ICT is also felt in its applications in the socio-economic and political aspects of life viz: Agriculture, Engineering and Arts, law, medicine etc.

Research Questions:

The following research question will guide the study

1. What are the integrated approaches to learning in early childhood education in promoting ICT?
2. What ate the integrated approaches of ICT adopted by government in education?
3. What are integrated ICT approaches adopted by teachers in instructional delivery?

Methodology:

A descriptive survey design was used in the research. This was done b8 seeking the opinions and teachers on the problems of the study. The study was carried out in Cross River State and the population of the study comprised of 51 Head Teachers and 4874 teachers in 251 early childhood schools. A multistage sampling technique organized in three stages was used to select three zones education zone the state. There are Calabar, Ikom, and Ogoja zones. A sample random sampling technique as used to select 50% of all the early childhood schools in each of the sampled zones. The head teachers of all selected schools were included in the sample. This gave a total of 88 head teachers.

Finally, 10 teachers were randomly selected from each of the sample schools and this gave a total of 88 teachers giving a total of 968 respondents. This is represented in the table 1 below:

Table 1

Numbers of schools in each of the selected education zones and the numbers of HEAD Teachers and teacher selected.

Zones	Calabar	Ikom	Ogoja	Total
Total number of school	70	57	50	177
No of head teacher selected	35	28	25	88
No of teachers selected	353	283	244	880

Sources: Researches and statistics C.R.S E Calabar (2012).

The instrument used for data collection for the study was questionnaire constructed by the researchers based on the research questions. The questionnaire was divided into two sections. A and B. Section A was responded by Head teachers and it contains 22 items organized according to research questions and two. Section B was responded by teachers and it contains 10 items based on research question three.

Two experts in the faculty of Education, department of evaluation and measurement, University of Calabar validated the instrument in order to ensure its validity and relevance of the items to the problem of the study. The instrument was also pilot tested to ensure its reliability and the data collected were analysed using Cronbach Alpha. This gave a coefficient reliability of 80.2 which was considered to be high. The questionnaire was administered by the help of two research assistants. Out of the 88 questionnaires distributed to Head Teachers, 76 were returned while 798 were returned out of 880 distributed to teachers. The data obtained were analysed using mean and grand mean based on a 4 point scale ranging from strongly agree of 4 point to strongly disagree of 1 point. Any item with a mean response of 2.50 and above was considered positive while anyone with a mean response below 2.50 was considered negative.

Results

Table 2: Mean response of Head Teachers on integrated approaches to learning in early childhood in promoting ICT.

S/N	Items	No of respondent	Score	$\bar{X}$	Decision
1	Computer provisions	76	198	2.61	Adequate
2	Internet connection	76	180	2.37	Inadequate
3	Provision of computer laboratory with adequate security	76	138	1.82	Inadequate
4	Provision of standby power supply	76	101	2.53	Inadequate
5	Provision of CD-RAMS and flash drives for teachers	76	78	1.03	Inadequate
6	Provision of multimedia				

	such as TV, Radio set and project slides	76	17	0.22	Inadequate
7	Provision of ICT competent teachers	76	153	2.00	Inadequate
8	Provision of laptop for teachers	76	00	0.0	Inadequate
9	Organizing of workshop for teachers on ICT	76	168	1.97	Inadequate
10	Funding for standby power supply	76	81	1.06	Inadequate
11	Provision of adequate fund for the maintenance of the computer and internet services.	76	90	1.19	Inadequate

Table 2: Revealed that the mean responses of Head Teachers in all the items were less than 2.50 except item 1. This shows that integrated approaches to learning in early childhood education in promoting ICT is still very low. It observed from the table that computers have been provided to a food number of schools but other facilitates necessary for effectiveness use of the computers and grossly of ICT teacher, provision of standby power, and computer software and computer laboratory with adequate security.

Table: 3

Mean response of Head teacher's integrated approaches of ICT adopted by government in education.

S/N	Items	No of respondent	Score	$\bar{X}$	Decision
1	Basic use of computer software such as word processing, database, spreadsheet, Microsoft word access.	60	131	1.73	Inadequate
2	Computer use for typing letters and documents	60	140	1.84	Inadequate
3	Teachers ability to access information from the internet	60	204	2.68	Adequate
4	Use computer to store information/data on important events	60	20	0.26	Inadequate
6	Use of computer to store and retrieve pupils and staff records	60	08	0.11	Inadequate
7	Interaction with teachers through computer conferencing	60	00	0.0	Inadequate
8	Preparation of work schedule though the use of computer	60	15.4	2.02	Inadequate
9	Use of computer to prepare school budget and other necessary finance information	60	82	108	Inadequate
10	Compiling and sending of pupils results online	60	16	0.22	Inadequate
11	Receiving online payment	60	23	0.31	Inadequate

The table shows that mean responses of Head Teachers on all the items except item 14 were below 2.50. The reveal that Head Teachers do not adopt the new integrated approaches ICT introduced by government in Education. item 14 shows that many head teachers can access information from the internet but it is however viewed from the tale that head teachers do not make effective use of the information since they do not use the computer to store and retrieve such information as when needed. It also observed that from item 12 that most head teachers have low competence level in the use of basic computer knowledge/packages.

Table 4

S/N	Items	No of respondent	Score	$\bar{X}$	Decision
1	Basic use of computer software such as word processing, database, spreadsheet, Microsoft word access.	783	1018	1.03	Inadequate
2	Use Computer in writing lesson notes	789	607	0.77	Inadequate
3	Access information from the internet	789	15861	2.01	Inadequate
4	Vary teaching technique through multi-media presentation	780	1060	1.36	Inadequate
5	Interaction with pupils teleconferencing	780	241	0.31	Inadequate
6	Generate graphs, drawing columns and bar cha with the computer.	789	1530	1.94	Inadequate
7	Evaluation of teaching technique through the use CR-RUMS	789	542	0.69	Inadequate
8	The use of computer keep track of pupils attendance	789	000	00	Inadequate
9	Computer of pupil results using computer software	789	931	1.18	Inadequate
10	Practicing activities through the use of CD-RUMS	780	177	0.15	Inadequate

Observation from table 4, the mean responses of teachers in all the items were blow 2.00 showing very low use of ICT in instructional delivery. This means that teaching and learning. The analyses of the items reveal that many teachers do not access information form the internet to enrich their lesson plan and teaching skills neither do they use computer to compile, and store important information/data.

Discussion

The result in table2 show low head teachers integrated approaches to leaning in Universal Basic Education promoting ICT. This is evident in the poor provision of ICT facilities and lack of fund for the maintenance of the one provided already. Although a good number of schools have been provided with computers, the study revealed that many schools, most of those computers are not connected to the internet

service while some have not been mounted for use due to lack of computer laboratories with adequate security . In addition, qualified computer teachers are grossly inadequate as well as standby power supply. The study in line with the federal government stipulations of ensuring effective use of ICT in schools through the provisions and maintenance of ICT facilitates and training of teachers and associated personal (National computer policy, 1988, National level of adopting of ICT in school operations to poor supply of necessary facilitates. (Akubailo and Ndubailu, 2003, Jegede and Abiodun 2003, Osadolor, 2008), however, Farrel and Wachhez (2003) were of the opinion that the limited use of ICT by teachers was not due to lack of facilitates but due to lack of knowledge and skill in its application.

The study again revealed that majority of head teachers is not competent in the application of basic computer software hence they are unable to exploit the numerous benefits that abound in the use of ICT in school. This finding id line with the findings Ezeugbor (2008) and Jegede (2003) who noted that teachers low competence in basic computer knowledge effect their ability in harnessing ICT gains in education. Hence, most head teachers still to the traditional technique of keeping records in files and typing letters and documents with manual type-writer.

Analysis of research question 3 as show in table 4 revealed that teachers do not make important use of modern information technologies in classroom operations. This is according with earlier findings of Ezeugbor (2008), Akamolafe (2008), and Sloube (2006). The implication of information explosion which teachers still narrow their instructional out dated notebooks and textbooks. They are ignorant of pedagogical ICT that foster collaborative and exploratory learning.

Hence teaching is still teacher centred instead of pupil centred learning in which pupils are given the opportunity to explore and experiment. Several person attribute teachers' inability to use ICT in difference school programmes and operations to inadequate knowledge and skill in its applications. Some teachers are ignorant of the various benefits of ICT in teaching delivery (Alike *etal*, 2012). The study indicated that majority of schools have computers but very few teachers have the knowledge of the application of the basic tool, which implies that teachers should be well trained on how to apply ICT in their official assignment (classroom operation).

Conclusion

All over the universe, the application of ICT is changing the face of teaching and Learning, Nigeria education system cannot be an exemption of this global benefit. Nigeria educational system need to fully utilize ICT to make education widely available as accessible. It produces richer learning outcomes to compare to education without ICT, which encourage critical reasoning and offers unlimited means of achieving educational set goal.

Recommendations

The following recommendations were made based on the findings of the study.

1. Adoption and application of new technologies ICT can be achieved based on recognition of the numerous that accrue from it use by head teachers and teachers that is by creating awareness on the benefits of integrating ICT in school programmes and classroom application. This could only be achieved through

intensive and irregular training of head teachers and teachers on practical application of basic computer software package.

2. There is a great need for teachers training institutions to design and implement training programs on practical application of pedagogical of ICT. Also government should provide teachers with laptops which could be paid on installment ground to boost their production and promote education excellent.

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