THE PLACE OF INFORMATION AND COMMUNICATION TECHNOLOGY IN EARLY CHILDHOOD CARE EDUCATION IN NIGERIA

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Abstract
This paper examines the place of information and communication technology in Early Childhood Care education in Nigeria. The paper touches on the concepts of early childhood care education and information and communication technology, while paying attention to the importance of information and communication technology to over all development of the child and relationship of children learning and ICT ability. It was found that effective utilization of ICT in early childhood care education will promote teaching and learning process. The paper therefore concludes that the effective application of different information and communication technology technique and materials will assist in the cognitive development of the child and thus recommended that information and communication technology should be enhanced to in fostering early childhood care education.
Keywords: Early childhood care education, Information and Communication Technology

Introduction
In spite of the importance of Early Childhood Care Education to the general development of individual children, the state of this education was not receiving much attention it deserves. It is glaring that, nowadays, other educational programmes benefit from and enjoy the use of information and communication technology, while Early Childhood Care Education lags behind, even though the issue of information and communication technology is very vital to effective teaching, creativity and learning in early childhood care education. With the introduction of the Universal Basic Education in Nigeria by President Olusegun Obasanjo on the 30th September, 1999, the importance of early childhood care education was recognised and the demand for it rose quickly to a very high level. Eyengbo (2008) stressed that early childhood care education has the potential of providing greater opportunities for young children to receive quality pre-primary education, irrespective of the income of their families and background of the child.

The foundation matters a lot in the early life of an individual. Their potentialities depend so much on the type of foundation laid at the early stage of the child's life. Aggarwal (2015) stressed that since education can be natural, harmonious and progressive development of man's innate powers by drawing out the best in his body, mind and spirit so as to produce individual who is culturally refined emotionally, stable, ethically sound, mentally alert, morally upright, physically strong, social efficient, spiritually enlightened, vocationally self-sufficient and internationally liberal. It is on the basis of this that early childhood care education is set so as to give the necessary foundation needed to the children at early stage of development for further development.

However, the first six years of life are crucial years of human life as the rate of development in these years is more rapid than at any other stage of development. Thus, the earliest years of a child's life are keys to predicting likely success in school and lifelong activities of the child. Early childhood care education makes a positive contribution to children long term development and learning by facilitating an enabling and stimulating environment in these foundation stages of lifelong learning. Hence, parents has important role to play in the life of their children at this level of education for them to be able to use information and communication technologies to their advantages. Parents as care givers are extremely important in the area of provision of a stimulating learning environment to their children for them to explore their intellectual abilities. The kind of early learning experience the children had exposed them to determines their emotional and cognitive development, which assists them to function in the lifelong academic activities.

The main objective of this study is to examine the place of information and communication technology in early childhood care education. The specific objectives are to (i) look at the curriculum contents of early childhood care education; (ii) examine the purpose of early childhood / pre-primary education; and (iii) find out the relationship between children learning and technology ability. In view of the nature of this study, the methodology adopted is qualitative. This involves the use of secondary sources of data like textbooks, magazines, newspapers, and online materials.

Information and Communication Technology
One of the vital tools and systems used for effectiveness of early childhood care education is the information and communication technology. The ever increasing awareness of information and communication technology (ICT) and its contribution to human development have drastically transformed human activities. Information and communication technology (ICT) is the scientific technological and engineering disciplines and the management technologies used in handling of information processing an application related to computer (Ogunwale, Olaleye & Oyedemi, 2010). They stress further that, information and communication technology (ICT) is the term used to describe the tools and process to access, retrieve, store, organise, manipulate, produce, present and exchange information by electronic and other automated means, these include hardware, software and telecommunication in form of personal computer, scanner, digital cameras, phones, taxes, moderns, compact disks and DVD players and recorders, digitalized video, radio and television and program, like database system and multi-media application.

Aderele & Famobuwa (2013), stressed that the terminologies, information technology (IT) and Information and communication technology (ICT) are often used interchangeably by educators. Information technology (IT) is the study of concepts, skills, process and application of designs for representing physical, hypothetical or human relationships, processed and presented electronically. On the other hand, ICT refers to a whole range of the technologies involved in information processing and electronic communications. Aderele and Famobuwa (2013), further stressed that it includes the radio, television, videos, computers, sensors, interface boxes, email, satellite connectors, internets and all the software and materials which are employed by teachers for teaching and learning. The principles of ICT in early childhood care education also promote the development of IT in the context of using ICT as a learning tool. In this information age, Aderele & Famobuwa (2013), submitted that it seems that educators are more interested in maximizing the benefits of ICT to enrich classroom instruction and learning rather than in the rhetoric of meanings and technologies. Unfortunately, many of our teachers are equipped to function effectively within the context of this advanced technology.

It is important to note that the role of information and communication technology in early childhood education cannot be over emphasized due to its immerse role play in the cognitive development of the children. It aids among others, the ways of thinking, analyze and evaluate all computer teaching and

learning process and it opens up a number of choice for the children to achieve the objectives setup for them. Ayelaagbe & Loto (2013), listed some of the objectives of Nigeria ICT policy:

1. It ensures that ICT resources are easily available to promote efficient natural development.
2. To guarantee that the country benefits maximally and contributes meaningfully by providing the global solution to the challenges of the information age.
3. To empower Nigerians to participate in software and ICT development.
4. To encourage local production and manufacture of ICT components in a competitive manner.
5. To establish and develop ICT infrastructure and maximize its use nationwide.
6. To empower the youth with ICT skills and prepare them for global competitiveness.
7. To integrate ICT into the mainstream of education and training.
8. To create ICT awareness and ensure universal access in promoting ICT diffusion in all sectors of national life.
9. To create an enabling environment and facilitate private sectors (Natural and Multinatural) investment in the ICT sector.
10. To encourage government and private sector joint venture collaboration.
11. To develop human capital with emphasis creating and supporting a knowledge based society and
12. To build a maze poof of ICT literate manpower using the NUSC, NDE and other platforms as train-the-trainer scheme for capacity building.

Early Childhood CareA Education

Early childhood care education (also early childhood learning and early education) refers to the formal teaching of young children by people outside the family or in settings outside the home. "Early childhood care" is usually defined as before the age of normal schooling-five years in most nations, in Nigeria, organized education of the child below primary school age did not receive official recognition until very recently, its receive the attention in Nigeria by the missionaries in the early 20th century when such schools were set up in Western and Eastern regions of Nigeria. Early Childhood Care Education in the form of nursery school or pre-primary education as we know it today in Nigeria is largely a post-colonial development. The semblance of it during the colonial era was the kindergarten and infants classes, which consisted of groups of education. As grouping for instruction in schools was not age-based during that period, some children aged six or even more, could be found in some of the infant classes (Oluwadare 2015). The national policy of Education (2013) describes early childcare/primary education as education given in an educational institution to children aged three to five plus prior to entering the primary school. Early childcare education includes the crèche the nursery and kindergarten.

There are two categories of early childhood care service delivery in Nigeria. The formally structures, registered and approved early childhood and pre0primary centers normally called nursery, kindergarten schools and the less structured type characterized by less formality and which is not registered and recognized by government. The formally structured, registered and approved one can be seen with staff, uniforms and usually conforms to set standard and policy guidelines of the government. And the less structured types are usually run by one person or organization who on either use an uncompleted building or a veranda in a private residence or church.

In recognition of the importance of early childhood care education, the federal government of Nigeria has by provision of policy encouraged the establishment of pre-primary sections in existing public primary and private schools, ensure that the main methods of teaching in the pre-primary institutions will be through play, and that the curriculum of teacher education is appropriately oriented to achieving this, and make provision in teacher education programmes for specialization in early childhood care education. Early childhood care education remains incomplete without active participation of their parents. The parents serve as integral part of the early childhood education because they are child's "first and best teacher". Therefore, early childhood care education must link to family, home culture and home language by uniquely caring for each child. The kinds of caring given to the child in the first two years matter a lot

in general development of the child. For instance, any child that lacks sufficient nurturing, nutrition, interaction with a parent or caregiver and necessary stimulus during this crucial stage may be left with development deficits.

Curriculum Contents of Early Childhood Care Education
The curriculum contents early childhood care education include the following interrelated domains of holistic development of life skills.

a. **Physical and Motor Development:** Gross Motor Skills, coordination of fine muscles with dexterity, eye hand coordination, sense of balance, physical coordination and awareness of space ad direction, nutrition, health status and practices.

b. **Language Development:** Listening and comprehension, oral skills/speaking and communication, vocabulary development, pre-literacy/emergent skills like phonological awareness, print awareness and concepts, letter-sound correspondence, recognition of letters, building words and sentences and early writing and introduction to language of school transaction.

c. **Cognitive Development:** Development of various concepts including pre number and number concepts and operations (knowledge and skills related to comparing, classification, serration, conservation of space and quality one to one correspondence, counting) spatial sense, patterns and estimations in measurement, data handling, skills related to sequential thinking, critical thinking, observing, reasoning and problem solving and knowledge about concept and physical, social and biological environment.

d. **Socio-Personal and Emotional Development:** Development of self-concept, self-control, life skills/self-help skills, habit formation, initiative and curiously, engagement and persistence, cooperation, compassion, social relationship, group interaction, pro-social behaviour, expressing feelings and accepting others feelings.

e. **Sensorial Development:** Development of the five senses through visual, auditory and kinesthetic experience.

f. **Development of Creative and Aesthetic Appreciation:** Exploring different art forms, develop dispositions, expression and appreciation for artistic, dance/drama and music activities (Early childhood education curriculum framework (Draft), 2012).

The Purpose of Early Childhood Care /Pre-primarily Education
According to Early Childhood Education Curriculum Framework Draft (2012), the aim of early childhood care education is to facilitate optimum development of the child's full potential and lay the foundation for all round development and lifelong learning. The overall purpose of pre-primary education as spelt out in the National Policy on Education (2014) are to:
a. Effect a smooth transition from home to school.
b. Prepare the child for the primary level of education.
c. Provide adequate care and supervision for the children while their parents are at work.
d. Inculcate social norms.
e. Inculcate in the child the spirit of enquiry and creativity through the exploration of nature and the local environment, playing with toys artistic and musical activities etc.
f. Teach co-operation and term spirit
g. Teach the rudiments of number, letters colours, shapes, forms etc through play and
h. Teach good habits, especially good health.

Relationship between Children Learning and Technology Ability
Early childhood care education often focuses on children learning play. Play is central to the child's well-being and development. It provides opportunities for exploration, experimentation, manipulation and problem solving that are essential for constructing knowledge and also contribute to the development of representational thought. It is generally assumed that children learn more efficiently and gain more knowledge through play-based activities such as dramatic play, art and social games. At this stage of

learning, children need a lot of concrete resources that have to be systematically managed through the application techniques in teaching and learning process. Hence, information and communication technology which involves the use of electronic and non-electronic media like radio, television, camera. Computer, video, cassette recorder, pictures and posters etc in solving all problems in human learning are paramount to early childhood education.

Early childhood care education is vital to child development. Whatever the learning experiences gained by the children at this stage of education have implications on social, physical, intellectual, creativity and emotional development of the child. Okoruwa (2012) summarized he effect and domain of ICT or the following areas of child development:

* **Social and Emotional Development:** ICT can enhance children social and emotional development by enhancing their self-concept, improving their attitude towards learning and increasing the levels of cooperation between them. However, it cannot and should not replace human interaction or take the place of activities and as reading and sharing conversation with children.
* **Language Development:** Computer play encourages longer and more complex speech and development are doing while drawing pictures and moving objects and characters around the screen.
* **Cognitive Development:** At the computer, children can approach learning from a variety of perspective and follow various paths to a good. This encourages exploration, creativity, imagination, and problem solving use appropriately, computer can be a positive demit of children's play and learning as learning as they explore and experiment.

It is worthy to note that early childhood care education is paramount to general development of the children. Thus, when conducive learning environments are made available to the children there would be high quality education capable of promoting civic skills, valves and critical thinking in technology ability. Furthermore, in early childhood stage, children learn through interacting with stimulating immediate environment which consists of a variety of materials to arouse and sustain their curiosity. It equally promotes their learning thereby develops the children technology ability because information and communication technology stresses the importance of teaching and learning as a whole. This is concerned with the design of appropriate learning environments.

In addition, information and communication technology is vital to early childhood education. Ability to think, create, manipulate, make decision, memorize etc depends on what specific technology used and how frequently the children used them at early years in their lives. Hence, information and communication technology is inevitable in early childhood education because it helps the children to pay attention to teaching and learning process. As attention is the gateway to thinking without attention other aspects of thinking like perception, memory, language, creativity and decision making not occur at all. Ability of children to focus effectively and consistently at early age of their lives lays foundation for all other aspects of their schooling.

Conclusion

Information and Communication Technology plays vital role in fostering early childhood education. For a better foundation of other level of education in Nigeria, therefore, the effective application of different information and communication technology resources and materials need to be seriously considered as one of the ways of making teaching and learning in our early childhood's care education more efficient, more effective and more interesting so that children will have opportunities to explore all available academic pursuit around them vigorously.

Recommendations

For effective utilization of information and communication following recommendation are made.

1. The required staff in different early childhood facilities should have teaching qualifications to enable them coordinate the learning activities effectively.

2. Seminars, conference and workshops should be organized from time to time to enable the staff/teachers in early childhood education, centers upgrade their knowledge on how to manage and apply information and communication technology resources for teaching the children.

3. There should be adequate supply of appropriate developmental play materials to ensure all round development in all early childhood education centers. And materials should be kept in safe and clean environment.

4. The government and private should procure and equip early childhood education centers with information and communication technology materials for effective and efficient teaching and learning of children.

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