



# Information Resources for Creativity and Innovation: The way forward for Early Childhood Educators for Sustainable Development in Nigeria

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## Abstract

This paper discusses information resources for creativity and innovation in early childhood education, a key focus for sustainable development. The paper espouses the information role of library; the relevant library information resources in the information technology era; the significance of multi-media resources in resource centre, the need for Information Literacy skills competencies for educators' to leverage unhindered access to information and boost creative skills and innovation. The paper mirrors the challenges hindering information resources utilization by early childhood educators in Nigeria which include: dearth of professionals; poor funding; poor ICT Skills amongst staff; poor ICT infrastructure; inadequate library resources and defective multimedia centers among others. Suggestions were advanced on how to improve information resources, make them accessible for greater innovations and creativity amongst ECE for sustainable development.

Keywords: Information Resources, Innovation, Creativity, Early Childhood Education.

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## INTRODUCTION

Information is the transmission of data laced with ideas, norms, and values through formal or informal channel to enhance creativity and innovation. Reitz (2004) describes information as all facts, conclusions, ideas, and creative works of human intellect and imagination that have been communicated, formally or informally in any form. In the same vein, Etim (2007) views information as facts, intelligence, data, news or knowledge refined, processed and packaged for use. It is no gain saying that information is power, because it possesses the power to influence decision making. Research has revealed that all scientific discoveries and technological innovations in various fields of scholarship depend on effective use of recorded information and information resources in the library. This therefore means that information reduces uncertainty and increases chances of choice for decision making. The library is the hub of information, which houses all types of information in diverse formats to satisfy users'

information needs. These diverse formats are referred to as information resources discussed in this paper.

With global information landscape metamorphosing, researches in education methods and practices, science and technology are changing and imparting on creativity and innovation which are key focuses for sustainable development. Fostering creativity in education is long desired because of the fast changing world, where early Childhood Educators must interplay. According to Ari (2017), creativity is the bringing into existence something new; it involves applying new knowledge, methods, approaches, and techniques to service delivery that is taking step towards the unknown. Zaid and Adetoun (2012) opined that creativity is the bringing into existence something new as well as new ideas that can be used to solve a problem. Innovation, on its part, according to Franklin, McNinch, Sherman (2013) cited in Ari (2017) is an attempt to bring up new ideas to replace old or existing ones and the putting to use of these new ideas. It could also be seen as the application of better solutions that meet new requirements.

The two concepts are intertwined; it is almost impossible to discuss one concept without the other. Teaching is the main function of the early childhood educator. A distinction between creative teaching and teaching for creativity, as elucidated by Jeffrey & Craft (2004) cited in Craft (2005), affirms that creative teaching focuses on teacher practice, that is, using imaginative approaches to make learning more interesting and effective, whereas teaching for creativity highlights learner agency that is identifying young people's creative abilities, encouraging and providing opportunities for the development of those capacities. In whatever creative ventures teachers may want to adopt, the library is the epicentre for research and provides the information in the various formats which every 21<sup>st</sup> century early childhood educator would need for useful researches on child development. The fact that there are newer strategies for innovation, emphasis should be placed on information gathering and utilization in this knowledge revolution and technology era. Hitherto, Libraries were known centres for knowledge gathering, knowledge storage and knowledge dissemination. Aguolu and Aguolu (2002) best refers to the library as an essential resource for research, and curriculum implementation through the creation of equitable access to information as a primordial function. Supporting the above, World book (2001) reiterated that libraries have long stored materials that enable ideas, knowledge and experiences to be passed on from generation to generation, without which communication, cultural and technological developments would not have been as advanced as they are today.

Essentially, for early childhood educators to be creative and innovative, they must have access to adequate information through information resources stored in print and electronic formats, which are crucial ingredients for researches today. Supporting the same view, Emeghara (2014) asserts that libraries are now measured by the level of automation, internet connectivity and accessibility to information. With the new technology, changes are being witnessed in libraries and all levels of teaching especially the shift in emphasis on physical resources to virtual resources; from physical classroom to E-learning and virtual classroom. Without the library and its information resources, education will be static and moribund because no new ideas or research discoveries are documented. In the same vein, Bello (2015) argued that lack of information resources implies non-existence of information. Therefore, where there is no information, there would be no education nor innovations.

## **CONCEPTUAL CLARIFICATION**

### **Library Information Resources**

Information resources are indispensable tools for educators and researchers. Elaturoti and Onyide (2003) defined information resources as those print and non-print materials that are

selected specifically and organized for implementing the educational programmes at all levels of education. Information resources as materials consulted for aids or for knowledge about a topic, a theme, an event, a date, a number, a place, or even a word. Bitagi and Ozioko (2015) cited in Umoh (2019) refers to the concept of information resources as all library materials or facilities which the librarians rely upon to provide information services that meet with information needs of the agricultural scientists which were the focus of the research. This implies that researchers in all fields seek information resources in diverse formats from the library. In earlier studies by Aina (2004), it was opined that information resources encompass variety of items such as books, serials, indexes and abstracts, internet, tapes, microforms, maps, and compact discs which are carriers of information that are useful to information seekers. Basically, information resources comprise of the following print and non-print materials, including virtual resources which are all components of research and innovation.

### **Print Resources**

Highlighting the traditional resources that the library houses, Totterdell (2005), cited in Ibenne (2018), emulated a long list of information resources in the library that can help researchers in their quest for information. These resources include: Bibliographies, books, newspapers, catalogues, pamphlets, company reports, patents, specifications, computer- assisted learning, programmed texts, packages, prospectuses, maps, computer programs, records, conference proceedings, standard specifications, Directories, statistics, films, trade literature, books (textbooks & fiction books) journals, manuals, Almanac, Directories, periodicals, newspapers, encyclopaedias, dictionaries, theses, dissertation, indexes, abstracts, government publication and biographies.

### **Non- Print Resources**

These are also very important resources referred to as non-paper based or non-print resources which comprise audio, audiotapes, cassettes, microforms, graphics, photographic materials etc. Interestingly, electronic based resources are increasingly being emphasized in libraries globally known as web resources. Multimedia resources are major components in library collections such as photographs, filmstrips, maps, slides, motion pictures, records, audio, videotapes, laser discs, films and sound recordings, etc. Reiterating the relevance, it is clear that millions of electronic resource are titles in different disciplines on compact disks (CD ROMs) and diskettes which can be read, downloaded or printed out are stored for use in the library, examples include, Journal of storage (JSTOR), Access to global online research in agriculture( AGORA), HINARI, TEEAL, and e Granary among others. Obi (2007) asserts that the e Granary is a digital library that supplies millions of digital resources to educational institutions without cost, especially to developing countries that have no internet facilities or power. This e Granary delivers multimedia documents which would be most appropriate to early childhood educators. These resources or links provide answers to questions raised by educators.

### **Media Resource Centre for ECE**

Multi-media centers are statutory facilities for the ECE and one of the most fascinating and fastest growing areas in the field of IT and digital multimedia libraries; these centers also contain traditional educational resources such as books, journals, and audio visual resources such as photographic materials, films, recordings, slides, and transparencies. Presently, the information age has ushered in new devices, learning software, animation, graphics, text, image, audio, and visual materials as well as electronic resources, which have revolutionized MMC. Chisenga (2000) stressed the need to establish multi- media libraries in early childhood

education centers for teaching effectiveness. Emphasizing the need for multi-media resources, Ajayi (2019) listed types of multimedia resources available in the libraries and information centres such as: i) CD- ROMs; ii) video discs (VD); iii) laser discs (LD) iv) audio and video cassettes; v) web; vi) database on servers; and vii) digital video. Ajayi (2019) reiterated that most of the information in print has long been converted into electronic format demanding appropriate technology tooperaterecordings, audio-visual media, and digital media to enhance creative prowess in the virtual classroom, because education goals are meant to nurture future scientists, artists and entrepreneurs, etc. It becomes imperative for the educators to be research oriented, that is to engage in meaningful research for creative and innovative venture. Presently, education is technology driven, with early childhood as a major beneficiary and library service delivery as a major intermediary providing such services as e books, e journal, digital repositories, and round the clock services as highlighted by (Issa & Abadina, 2018). The emphasis on media resource libraries should be virtual resources like e granary which supplies millions of digital resources for research and creativity.

Internet is another resource that must be deployed in the library and media centre, because it is the known fastest means of getting information, it is also known as web and digital information super highway, it is a delivery mechanism through which digitalized information travels. Adesanya (2002) asserts that internet is a collection of computer networks that connect millions of computers around the world. Again, internet is a Meta network or a network of networks which links up a global agglomeration of computer resources for public access. Early childhood educators are challenged by the enormous opportunity to use information resources on the internet especially on how to apply animation to early learners studies, Robotic education, e-teaching, e –learning in virtual classrooms.

### **Early Childhood Education and Educators**

According to Odigie (2003), early childhood education is a branch of education theory that relates to teaching of young children; while early childhood educators are professionals who work directly with young children from infancy to age 8, who have acquired the requisite qualification in the field of early childhood and primary education studies, and are professionally competent in all ramifications coupled with developed skills and knowledge. Early childhood education literally means the education given to children from ages 0-8 years; it is also referred to as the starting point for a child’s development, the stage where they exhibit childhood development behaviour which is most probably challenging, restless and cumbersome. Ari (2017) equally defines ECE as a programme that services children in the pre-school years designed and organized to improve future academic *performance*. Although there are contentions as to the age bracket for early childhood children, however, UNESCO reports classified childhood education into three major areas as early childhood, middle childhood and later childhood. This paper is basically concerned with the early childhood educators responsible for children within the age zero to eight years; this period of learning extends into Basic three in the Nigeria education system. This level under review is again stratified into different stages such as Day care or Play group, Crèches, Nursery and Kindergarten. At this level of education children are prepared for the upper primary through to the lower secondary school. In recognition of these different levels of education, the National Policy of Education (FRN 2012) clearly stipulates the aims and objective of early childhood education to include:

- Effecting a smooth transition from home to school;
- Preparing the child for primary school;
- Providing adequate care and supervision for the children while their parents are at work;
- Inculcating in the child the spirit of enquiry and creativity through the exploration of the environment

- Teach team work, good habits and cooperation amongst others

These very sensitive aims and objective further strengthen the philosophy of ECE, with emphasis on foundation curriculum for ages 2–8 years to form a child’s life style which is crucial to learning and the development of the child’s mind, intelligence and self-image. Actualizing or achieving the very essence of the above objectives depends largely on early childhood educators’ research ability, adequate library resources, teachers possessing the requisite qualification, wealth of information and teaching ethics acquired in teacher education programmes. With the expansion of human knowledge, emergence of new technologies on teaching, sophistication in education methods and practices, this complexity obliges educators to be creative and innovative. Dealing with such complexities in childhood education, educators would unequivocally modify teaching and learning to suit the age and time, embrace new teaching strategies, instructional methods, provide adequate information resources for effective learning outcomes. Maxwell (2018) reiterated the fact that educators, researchers, and pupils need information and advocate for immediate response to information resources provision, curriculum review, resources adequacy and expertise in early childhood education for the much needed innovation and creativity for sustainable development.

### **Information Literacy Skills for Early Childhood Educators for Effective Utilization of Information Resources**

The library is a citadel for knowledge acquisition, human development, and a centre for nurturing creative and innovative minds of researchers, educators and students alike. The vast information resources and educators’ inability to access that information have further necessitated the need for information literacy. Information literacy is a 21st century issue that has affected all areas in the society and should be treated thus; it is a pointer, facilitator, and an enabler to efficient information; it should be seen as a core instructional pedagogy in education because it is way beyond reading, writing and arithmetic. Nevertheless, it should be treated as competency skills for effective participation in the information sphere. Competencies refer to skills or knowledge that leads to superior performance. Information literacy skills, as defined by Ojedokun (2007); Etim (2007); Dadzie (2009), cited in Uhegbu, Unagha, and Nwokocha (2012), is a set of abilities requiring individuals to recognize when information is needed and have the ability to locate, evaluate and use effectively the needed information.

Information literacy competencies as the ability to identify information needs, seek out resources to meet those needs, and then analyze, evaluate, synthesize, and communicate the resultant knowledge. Simply put, IL is the aggregate of diverse skills and abilities comprising of media literacy, library use-literacy, digital literacy, network literacy, visual literacy, computer literacy, and critical thinking skills which would be beneficial to the recipient for lifelong learning. Having these skills will no doubt enhance the childhood educators in the pursuit for creativity and innovation for development. Adjudging these skills, means these competencies are utilitarian and for survival in all aspects of a person’s life, and various areas of engagement of men. Moran and Gibbs (1999) cited in Unagha (2011) argued that users of information must develop generic information seeking skills they can use or apply in many different contexts. The importance of competency skills in education and research cannot be over emphasized, as reiterated by Unagha (2011) that educational institutions have devised several strategies to foster critical thinking and innovation by teaching information literacy skills to students, educators, and researchers to enhance their use or search for information.

This implies that early childhood educators must access needed information for problem solving and decision making as noted by Basefoot, Nwokocha&Unagha (2006) that ability to solve a problem needs one to learn a new set of skills, which is information literacy(IL) skills on how to locate, use information for problem solving. The ECE must be information

literate; going by Madison (2019) proposal that information literate person must develop the following:

- Awareness of how you engage with the digital world;
- How you find meaning in the information you discover;
- How to articulate what kind of information you require;
- How to use information ethically;
- Understand the role you can play in the communication in your profession; and
- How you evaluate information for credibility and authority

Hence, the importance of IL skills to researchers and educators as spelt out by Eissenberg, Lowe, and Spitzer, (2004) cited in Etim (2007) includes to:

- Equip researchers with lifelong competencies;
- Help educators to organize information resources accordingly for practical applications;
- Make educators to be information literate, to recognise accurate information in the face of fake news;
- Help researchers to develop successful information search strategies;
- Help educators for rational decision making and potential sources of information.

The importance of IL skills to early childhood educators cannot be over emphasized, because it empowers the educator with the skills and competencies to utilise the needed information and information resources for creative initiative for innovation and sustainable development.

## **CHALLENGES**

Many challenges abound in the provision of library information resources for early childhood educators, such as:

- Poor multimedia resource centre: managing the multimedia resources in academic libraries is a challenging task because of the varying formats and it also requires better infrastructure and IT specialist. Studies have shown that some departments of early childhood and primary education studies in universities lack media resource units or libraries, most times the relevant collections to enhance the teachers or educators' creative ability are lacking. Omehia (2007) decried that the multimedia centers in colleges of education libraries in the south south region in Nigeria are characterised by obsolete resources, brittle, expired videos, CD ROMs, old viewing gadgets, expired CDs, among others.
- Poor access to relevant information resources: Inaccessibility to information resources is a big challenge to educators especially when the information is available and the users lack the necessary retrieval skills such as digital literacy skills. Poor internet connectivity due to power outage or poor internet subscription to access online resources, most of the libraries are not keeping pace with IT growth and the exponential growth of virtual resources.
- Dearth of librarian: The lack of professional librarian to manage the multi media centre has long been a challenge, expertise in audio- visual material management and multimedia specialists are scarce. The educational technologists trained in Nigeria lack the requisite skills to man the centre or repair, set up or evaluate the equipment.

- Attitude of ECE is a big issue in this information high tech era, where teachers or educators are not ready to adopt new changes, utilize IT facilities and keep pace with latest trends in technology.
- Poor funding: Funding laudable projects is a major challenge in this part of the world. Most of the problems emanate from poor funding. Funds are inadequate to source for materials, pay for subscription, repair IT facilities, build IT infrastructure amongst others. It is pertinent to mention, that teacher education institutions running early childhood programmes lack multimedia resource centers equipped with the latest technology.

## **WAY FORWARD**

- Availability and accessibility of print and non –print materials in the library is the first step towards addressing the challenges raised in this paper. It is obligatory for the library to provide information in all formats to meet the childhood educators’ demand because accessibility to information is crucial to attaining good innovative strides.
- The librarian must create information consciousness for all ECE to enhance access to needed information through capacity building for the educators, especially in the area of ICT utilizations, print and virtual resources. The librarian must also encourage the teaching of information literacy competencies skills to enhance the ability to understand, use, access information for creativity and innovation. As a matter of policy, the librarian must enforce the teaching of information competence course for maximal utilization of resources.
- Funding: The ECE needs ample support in the drive for sustainable education, parent institution, the federal and state government who are directly responsible for funding should give credible support. Provision of information resources and establishing media resource centre with internet facilities are a must for the educators and the young learners for international best practices. External funding from international organizations should be explored because there are Multinational Corporations currently involved in similar help projects.
- Qualified librarian or information media specialist should be engaged to man the media centre for proper organization, collection, processing, dissemination, storage and preservation of information materials for the educators. Technologists to repair and fix the equipment should be on standby.
- EC professionals must leverage on high quality information resources because they juxtapose the components of metacognitive goals, personal disposition, cognitive development and decision making especially in sorting or providing resources for teaching early learners which the library stands to provide. Innovative teaching methods, using the latest technology like smart boards, interactive sectors, and mottled learning style to break complex subjects and tasks into easily digestible pieces for early childhood learner are some of the advantages of having a multimedia centre.
- Utilizing the information and communication technology devices (ICT), accessing vast internet information and deploying it to use for creative and innovative ventures especially in foundation learning by educators are pertinent.

## **CONCLUSION**

Information resources are key enhancers to creativity and innovation for early childhood educators, especially the 21<sup>st</sup> century teaching that is inundated with information technology IT explosion, ICT, and educational technology. Therefore, Libraries and information centres are charged with the duty to provide resources for educators because information resources are the

back bone of research, creativity and innovation for sustainable development. The paper mirrors the importance of information and diverse information resources for educators, the need for multimedia centres in ECC. The paper revealed some constraint to information and information resources use in the library and multi-media centre and advanced suggestions on the provision of adequate funds, employing qualified personnel to man the multimedia centre, and introduce information literacy skills to the ECE educators.

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