

THE DESIGN/CONSTRUCTION OF EDUCATIONAL TOYS AND GAMES FOR ENHANCING TEACHING OF ENGLISH ALPHABETS IN THE NURSERY SCHOOL LEVEL IN NIGERIA

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Abstract

Nursery Education is the initial stage of organised instruction designed primarily to introduce very young children to a school-type environment, that is, to provide a bridge between home and a school-based atmosphere. Being the first level of education and the foundation to all the other levels of education in Nigeria, it is very dynamic considering its sensitive nature. Teaching at this level comes with its own unique challenges. Take for instance, stimulating and retaining the pupils' active attention in the class while teaching them has to be strategically done for effective teaching and learning to take place. Therefore, in the realization of the teaching objectives in the teaching of children at this tender age, educational toys and games should always be reckoned with and its constant usage for classroom teaching should be given more attention for smooth delivery of the contents of the lesson. More importantly, the children should be well exposed to the letters of the English Alphabet through the use of appropriate Educational toys and games. This paper discusses the role of educational toys and games in the teaching and learning of the letters of the English Alphabet, origin of Nursery Education, meaning of Nursery Education, teaching and learning, Educational toys and games and examples of educational toys and games.

Keywords: Educational toys and games, teaching and learning, Nursery Education, English Alphabet

Introduction

Children all over the world identify with Toys and Games because they derive satisfaction and fulfillment from using them. Archaeologists reveals that development and production of Toys existed over 4000 years ago, and many of the toys used at that time are still being used today in one form or another.

Theorists like Piaget and Montessori stipulate that children between two to four (2-4) years have no real conception of abstract principles that guides classification and that the child's judgment is based upon his perception of "before the eyes" reality. Therefore, effective teaching and learning among the Nursery School children is expected to be well organized by using quality Instructional Materials like Educational Toys and Games that are well embellished with the relevant learning contents - the English Alphabet among others. These Educational Toys and Games when well utilised, vis-à-vis the lesson objectives, can help to improve the learning condition in the classroom at the Nursery School level. Firstly, the classroom teacher will be able to complement the spoken aspect of the learning objective with the presence of (the)

Educational Toys and Games. Secondly on the part of the learners, learning becomes clearer and more effective and interesting as the learners would be able to put their organs of sense (touch, hearing, seeing.) to work.

In the early development of children, educational toys and games should form part of the indispensable educational tools needed for laying the children's educational foundation that would be required for their future educational pursuits.

Origin of Nursery Education

According to Jonah (2010), Nursery education has a rich and exciting history. Brain and Anderson (2000) in Jonah (2010) observes that the story of its development is the chronicle of people and movements who took bold steps towards improving children's lives. Critical events have had a hand in shaping the history of early nursery education. Example, a national crisis such as World War I brought together a community to provide for its children (Jonah, 2010). Furthermore, Davis (2002) in Jonah (2010) states that the nursery school today is different from what it was when the movement began more than 50 years ago.

It is different because of the changes in the world, because the place of education then and now is different.

The first Nursery school was established by McMillan sisters in London in 1908 (Jonah, 2010). According to Douglas (1999) in Jonah (2010) their interest then was in improving the health and general welfare of young children living in slum areas of the city. He stresses further that the social, the emotional, and the intellectual development of children later began to concern people in England and in many other countries. Cooper and Zubek (1998) in Jonah (2010) assert that in the United States, interest in the development and welfare of young children led to the establishment of nursery schools soon after the First World War. Most of the schools established in the first years were laboratory schools in colleges and universities for the purpose of learning more about the growth and development of children.

Gray and Klan (1998) in Jonah (2010) state that amongst the individuals who contributed to understanding of needs of young children were Maria Montessori of Italy, who developed a program of activities for young children that contrasted with the passivity of earlier education programs. John Dewey, who stressed the importance of activities, and of first-hand experiences in learning. Sigmund Freud, stressed the significance of the first years of life, and the relation of emotions and behaviours. Other prominent individuals worthy of note are John Locke, Rousseau, Pestalozzi, Froebel, Arnold Gesell, and many more. As already noted, the early history of nursery education is a combination of the efforts of individuals and groups.

Nursery Education in Nigeria

The National Policy on Education (2004) states that nursery education is the education given in an educational Institution to children aged 3-5 years plus prior to their entering the primary school. In the same way, Nursery education is the initial stage of organised instruction designed primarily to introduce very young children to a school-type environment, that is, to provide a bridge between home and a school-base atmosphere. Omozeghan (1995) in Osakwe (2009) also states that nursery education is the type of education meant for children between the ages of 3 to 6 years. Also, Fakeye (2009) states that the National Policy on education

of (1997) and its revised editions of (1998) and (2004), proclaim that education is the birth right of every Nigerian child, and should be brought close to the environment of the child. Education entails imparting and acquiring of knowledge through teaching and learning, especially at a school or similar institution (Encarta, 2008).

Teaching and Learning

Teaching and learning are what ultimately make the difference in the mind of the learner and thus affect knowledge, skill, attitudes and capacity of young people to contribute to contemporary society (James and Pollard, 2012). Learning should aim at helping individual children to develop the intellectual, personal and social resources that will enable them to participate as active citizens, contribute to economic development and flourish as individuals in a diverse and changing society. Learners should be encouraged and helped to build relationship and communication with others for learning purposes, to assist the mutual construction of knowledge and enhance the achievement of individual groups. Teaching and learning should take account of what the learners know already in order to plan their next steps. This includes building on their previous knowledge and taking account of the personal and cultural experiences of different group of learners. Teachers should provide activities and structures of intellectual, social and emotional supports to help learners move forward in their learning. A chief goal of teaching and learning should be the promotion of learner's independence and autonomy.

The contents of a child's mind first form in his concrete environment. However, Children must master certain specific sub-skills to be able to read widely and intelligently (Goodcare, 1977). Walker (1975) states that letters need to be taught very thoroughly before the children meet them in words that is, before they read. He stressed further that, children be taught both capital and lower-case form for each letter at the same time. He concluded that in order to avoid ambiguity care should be taken to teach the pictures first, before associating them with letter shapes. Piaget's studies have shown more about children's cognitive development. His discovery has also helped to realize that the logic of young children is qualitatively different from that of adults. The child's stage of cognitive development may affect the degree to which he can understand

the abstract nature of the reading process (Goodcare, 1977). However, educationists such as Jerome Bruner (1960) contend that “the foundations of any subject may be taught to anybody at any age in some form” (Goodcare, 1977). In practice, this implies that, teachers knowing about the stages in acquiring the reading skill and being able to accurately match them to children's developmental stages. A child could be assisted in his developmental years through the application of teaching reading that are based on the aspects of children rather than adults.

Types of Educational Toys

[Educationaltoysplanet](#) (2005) categorised toys into the following different types namely: Math Toys, Language Toys, Science Toys, Social studies, Arts and Crafts, Electronic Toys, Puzzles, Games, Pretend Play, Building Toys, Animal Toys, and Music Toys.

Historical Development of Toys and Games in Nursery Education

The use of toys by Children is traceable to ancient societies. In ancient Africa, Children enjoyed balls, animals and pull toys. Children of ancient Greece and Rome had fun with carts, hoops and tops. During the middle ages in Europe, popular toys included clay, marbles, rattles and puppets. Before the development of large toy factories, parents or craft workers made toys. By the 1800's most children in the United States played with home-made toys or imported toys from Europe.

Toy manufacturing became an important U.S. industry in the early 1900 (The world book 2002). Also, Maria and Edgeworth (1823) stipulate that Toys were first referred to as “instructive” toys by the earlier generations in the United States around 1800. Although, most of the toys were American made, there were some European toys that were used in the U.S. Hewitt & Roomet (1800) did not limit the role of educational toys to fostering of cognitive development alone of which would exclude many playthings used today to encourage motor skills. The term “educational” toys meant different things at different periods. In 1800, for example, the phrase referred largely to very didactic toys from which a child could learn specific facts, such as maps, puzzles or games. Towards the Nineteenth century “educational” toys often included construction toys and optical and scientific toys that were so complex that they had to be demonstrated by an adult.

Later in the century, when the kindergarten movement was established, the term expanded to include a whole new range of playthings from beads to large blocks, which educators had designed for young children. Today, designers, educators, psychologists, advertisers, manufacturers, teachers, parents and other child rearing authority, consider all playthings “educational”.

An important aspect of the debate on stability versus change has to do with the degree to which early experiences play a formative role in our later development. Freud was one of the first psychologists to emphasize the critical nature of man's early experiences for later development. In contrast to Gesell's maturationist position, John B. Watson (1928) argued for the dominance of the environment on children's development. Watson believed that genetic factors placed no limits on how environments could shape the course of children's development. Watson was famous for his boast that, given the ability to manipulate the environment to his own standards, he could shape the development of any child:

“Give me a dozen healthy infants, well-formed, and my own specified world to bring them up in, and I'll guarantee to take any one at random and train him to become any type of specialist I might select doctor, lawyer, artist, merchant-chief, and yes, even beggar-man and thief, regardless of his talents, penchants, tendencies, abilities, vocations, and race of his ancestors. (Watson, 1930: 104)”

Following the above quotation, a manipulated environment in a way may translate to the use of appropriate tools like educational toys and games for lesson delivery in the classroom.

The Relevance of Educational Toys and Games in Child's Educational Development

Toys and Games are part of children; it is a tool for upbringing and education. It is in the light of this that the learning contents of children's toy ought to reveal the things in their environment. Children's early contact with things in their environment via educational toys and games can help lay a solid foundation. Also, for intellectual development when the children leave their reading books to play with their toys and games, the learning contents on the toys could be designed to reflect the ones in their picture-books. By maintaining sameness of learning

contents there will be much progress in a child's intellectual development. Therefore, toys and Games are indispensable for young learners in learning about their environment. Some of the impacts of toys and Games in a child's life are;

- i. Discovery of individual identity in their growth process.
- ii. To facilitate the learning of cause and effect.
- iii. To explore relationship and practice needful skills for life challenges.
- iv. To exercise the mind and beautify their living spaces.
- v. To develop the children physically, emotionally, socially, mentally, or intellectually
- vi. Recognition of the letters of the English Alphabets
- vii. To differentiate between the capital letters and the small letters

Soudee (2004) emphasizes that positive social interactions, emotional and cognitive stimulations are beneficial to a young child's development, which could be drawn upon in creating a conducive environment suitable for learning. Also, more toys could be designed with the child's education and development in mind. Plato, the Greek philosopher, says in Laws:

"I'm going to explain how one should describe education: It is this I insist that man who intends to be good at a particular occupation must practice it from childhood both at work and at play he must be surrounded by the 'special tools of the trade.' We should learn to use the children's games to channel their pleasures and desires towards activities in which they have to engage when they are adult..."

The above quotation emphasizes that a child's educational growth can be enhanced by exposing him or her to appropriate learning materials. Also, Teachers, Parents and Guardians should ensure that a child's game or toys is embedded with learning content that is appropriate for his or her educational development.

Toys and play naturally provide opportunities for practicing different thinking skills, such as imitation, cause and effect, problem solving, and symbolic thinking (Guyton, 2000).

Educational toys are thus designed to encourage reasonable development milestones within appropriate age groups. Importantly, the educational value derived by the child increases when the educational toy is age - appropriate. Educational Toys enhance cognitive behaviour and stimulate creativity. They help in the development of physical and mental skills which are necessary in later life. (Educationaltoysplanet.com, 2005).

Otaiba & Fuchs (2002) opine that early reading proficiency is strongly related to future reading ability and achievement. Stanovich (1986) supports these views when he says reading deficits at an early age have been found to widen over the elementary years, and these deficits persist throughout school and into adulthood. Conversely, children who begin school with strong emergent literacy skills are more likely to show academic success throughout their lives (Otaiba & Fuchs, 2002, Schonhaut & Satz, 1983).

Early childhood is a time of tremendous growth and development for children in every way: physical, social, emotional, and intellectual. Good quality early life experiences, including helping families meet children's needs, can enhance children's resiliency and promote optimal child development.

Nartowska (1986) cited in Elzbieta (2003) states that the objects may perform various roles and can be used for many different activities. According to him, there are toys that can be used for one form of activity, and toys which can be used for many activities. In effect, a chain of ideas is released. Dunnice (1972) and Nartowska (1986) state that a good toy should encourage a child into some level of activity and without any form of suggestion or compulsion.

Example of Educational Toys and Games for Learning the English Alphabets



Plate I, An Educational Toys and Games for learning the English Alphabet (Aa-Zz). Source: Developed and Photographed by Abayomi Adeshina 2014



Plate II: The Designer of the Educational Toys and Games was coupling the Educational Toys and Game before the learners. Source: Photograph by Abayomi Adeshina 2014.



Plate III, the learners were excited learning with the Educational Toys and Games Source: Photograph by Abayomi Adeshina 2014

Conclusion

This paper has shown that educational toys and games play a very vital role among the young learners and are necessary for teaching and learning the English Alphabets among the Nursery school pupils in Nigeria.

Recommendations

Based on the research findings, so many nursery schools need to acquire more educational Toys and games that could aid effective teaching and learning and for these above-mentioned reasons, the following recommendations were made:

- (1). It is recommended that school owners should equip their nursery school section with appropriate educational toys and games. This is to enhance recognition and pronunciation of the letters of the English Alphabets among their nursery pupils.
- (2). Nursery education is the foundation upon which the child's future is laid. Government should therefore, emphasize the use of appropriate instructional materials, such as educational toys to ensure effective teaching and learning.

References

- Early Child Development in Social Context* Child Trends and Center for Child Health Research, 2004.
- Ejembi, E.A. (2011) Postgraduate Lecture on: Meaning of graphic design, typography room, graphic design section, department of industrial Design, ABU Zaria.
- Ejeh, M. U. C. (2006) Pre-Primary Education in Nigeria: Policy implementation and problems

- Federal Republic of Nigeria (2004). National Policy on Education, Lagos: Government Press.
- Frutiger, A. (1980). Type Sign Symbol. ABC Verlag. Zurich Switzerland.
- Gibson, D. (2009). The Wayfinding Handbook Information. Design for Public Places, Princeton Architectural Press New York.
- Gielen, M.A. (2008) Essential concepts in Toy Design Education: Aimlessness, Empathy and Play Value
- Goodcare, E.J. (1977) Children and Learning to Read. Great Britain, Lowe and Brydone Printers Ltd.
- Graham, L. (2005), Basis of Design Layout and Typography for Beginners; Delmer Cengage Learning, USA.
- Guyton, A. (1978). The Early Childhood Leaders' Magazine (Exchange), Redmond.
- Hewitt & Roomette (1800) Educational Toys in American: 1800 to present.
- <http://computer.yourdictionary.com/corel-draw>
- <http://en.wikipedia.org/w/index.php?title=Toy&oldid=481220959>).
- <http://trevorcairney.blogspot.com/2010/12/excellent-educational-toys-for-children.html>
- <http://www.bing.com/images/search?q=flow&qsn&form=QBIR&pq=flow&sc=8-4&sp=-1&sk=> (retrieved on 25-11-2014)
- <http://www.educationaltoysplanet.com>
- https://www.google.com.ng/search?q=my+alphabet+book+for+nursery+school&source=lnms&tbm=isch&sa=X&ei=uFf4U5_3lcmi0QXb5ICADA&ved=0CAYQ_AUoAQ&biw=1366&bih=768 (retrieved on 23rd August, 2014 at 11:45am)
- https://www.google.com.ng/search?safe=active&es_sm=93&scient=psy-ab&q=curriculum&btnG=#safe=active&q=curriculum+for+nursery+schools+in+nigeria+pdf retrieved on 21st January, 2015 at 8:42pm)
- <http://www.ibike.org/library-retrievedonSunday11-08-2011,11.00a.m>.
- http://www.pcmag.com/encyclopedia_term/0,2542,t=CorelDRAW&i=40385,00.aspxonSunday11-08-2011,11.00a.m.
- <http://www.search.ask.com/web?o=APN10371&q=emphasis> retrieved on 15th October, 2014, 12: 45 pm.
- <http://www.thefreedictionary.com/graphic+designer>).
- Jonah, O. O. (2010). Quality Issues in Nursery Education in Nigeria: Department of Computer Science, College of Education, Oju.
- Kennedy and Barblett (2010) Learning and teaching through play elect printing Canberra, Australia.
- Khange, R. K. (2011), Exploring the Design and Development of Directional Signs Using Medical Pictograms and Bilingual Incorporations for Ahmadu Bello University Teaching Hospital (ABUTH) Shika-Zaria. M.A. Thesis, Ahmadu Bello University, Zaria, Nigeria.
- Kornerup A. and Wansher J. H. (1978): Menthuen Handbook of colour, Printed by Menthuen London Ltd, 11 New Fetter Lane London EC4P4EE P.g 2.
- Lally, J. R., Griffin, A., Fenichel, E., Segal, M., Szanton, E., & Weissbourd, B. (1995). *Caring for Infants and Toddlers in Groups: Developmentally Appropriate Practice*. Arlington, VA, Zero to Three.
- Macmillan English Dictionary for advance learners (new edition)
- Maria & Edgeworth R. (1823) Educational Toys in America (1800 to present): Practical Education Microssoft Encarta (2008).
- ational curriculum framework for school education (pre-primary - 12) in nepal Ruopp, R., T. Travers, F Glantz, & C. Coelen (1979). *Children at the Center. Final Report of the National Day Care Study. Vol. 1*. Cambridge, MA: Abt Associates.
- Nonoyama-Tarumi, Y. and Ota, Y. (2010) Early Childhood Development in Developing Countries: Pre-primary Education, Parenting, and Health Care.
- Nwogu, B.G. (1991) Educational Research: Basic Issues and Methodology, Wisdom Publishers Limited, Ibadan, Nigeria.
- Obisesan, J.B. (2009) The Value of Cultural Symbols in Visual communication of some Multi-National Print Advertisement in Nigeria. (Masters' Thesis, Department of Industrial Design, ABU Zaria).
- Ogunwole, S.O. (1996) the effect of the use of Reference materials on Graphic Design in Advertisement (Master's thesis). Department of Industrial Design, ABU, Zaria.

- Onibokun O.M. et al (1981) Nursey Education
(Associateship Certificate in Education Series)
Ibadan, Heineman Educational Books Nigeria Ltd.
- Osakwe R.N. (2006). Understanding Teaching Profession. Benin City: Osasu Printing Press.
- Otaiba S.A. and D. Fuchs, "Characteristics of Children who are Unresponsive to Early Literacy Intervention: A Review of the Literature," *Remedial and Special Education* 23 (5, 2002): 300-316.
- Peter, H.I. (2002) Understanding Children- Literature/History and Criticism. London:
- Schonhaut S. and Satz P., "Prognosis for Children with Learning Disabilities: A Review of Follow-up Studies," in M. Rutter, (ed.), *Developmental Neuropsychiatry*, (New York: Guilford Press, 1983): 542-563 as cited in S.A. Otaiba and D. Fuchs, 2002.
- Silvern, S.B. (1980). Play, Pictures, and Repetitions: Mediators in Aural Prose Learning, Educational and Technology, *A journal of Theory and Development*, 1(28): 134-139.
- The National Policy on Education 2004
- The World book (2002), Volume A. page 883
- The World book (2002), Volume P. page 570-571
- The World book (2002), Volume T.19. Page 351-352
- Valentine, C.W. (1962), (Colour Preferences among Infants, pg.33), *The Experimental Psychology of Beauty*, Camelot Press Limited, London.
- Vastu, S. (2006): Creating Mood with Colours.
<http://www.sereneinteriors.com/creatingmood>-Retrieved 02-09-2006.
- Walsh, T. (2005). *Timeless Toys: Classic Toys and the Playmakers Who Created Them*. Andrews McMeel Publishing.
- www.earlychildhoodaustralia.org.au/eylfpplp
retrieved on 25th April, 2013
- [www.http://fabricgraphicsmag.com/articles/0107db_typography.html](http://fabricgraphicsmag.com/articles/0107db_typography.html). (retrieved on 5th June, 2014
- www.learning-theories.com/addie-model.html
(retrieved on 22-10-2014, 8:06pm).
- www.mothing.com/community/t/1357292/teaching-themselves-to-read-how/20-retrieved
on 25th April, 2013
- Note: This paper was presented at the 2nd Fulafia Annual Research Conference, Federal University of Lafia, Nasarawa State. - Date: January, 2016**