
GUIDED PLAY AS A TOOL FOR THE LEARNING OF NUMERICAL SKILLS BY NURSERY CLASSES IN EARLY CHILDHOOD EDUCATION

BY

UKASHIA JOSEPH OGAR

DEPT. OF EARLY CHILDHOOD CARE EDUCATION
F.C.E, OBUDU
CROSS RIVER STATE
08062757671
ukashiajoseph@gmail.com

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IGIRI, IREM EGWU (Ph.D)

DEPT. OF EARLY CHILDHOOD CARE EDUCATION
F.C.E, OBUDU
CROSS RIVER STATE
08136481325

&

ADIE, VERONICA INEYI

DEPT. OF EARLY CHILDHOOD CARE EDUCATION
F.C.E, OBUDU
CROSS RIVER STATE
08072916089

Abstract

Children in early childhood are exposed to vast skills which they could learn formally, or informally. Skills introduced to them formally are relatively necessary to broaden their knowledge and improve their intellect for sustainable development. How and where children are guided to acquire skills is also very important. This paper therefore comprehensively discusses Guided Play as basic platform for the acquisition of numeracy skills by preschools for sustainable development in early childhood education.

Keywords: Guided play, acquisition, numeracy skills.

Introduction

Numeracy is an area of early childhood education curriculum which is comprehended and perceived as an integral aspect of academic learning and plays an important part in the formal education of children. Numeracy skills connote every part of the mathematical curriculum in early childhood education that has to do with basic numbers, counting, identification, manipulation of numbers, measurement, shapes, space, and colours. It is an important aspect of mathematical element of children's development which helps the improvement of school readiness and school success. When children acquire this basic number sense skill early enough, it goes a long way to enhance their interest and ability to embrace learning mathematics in the future for sustainable development. Piaget expressed that Numeracy helps to lay good foundation for human cognitive development hence helping children acquire the skills in early childhood becomes an urgent need for sustainable development.

Acquisition of numeracy skills

Acquisition of numeracy skills will be very useful in later years when mathematics is used to derive knowledge for such tasks as counting money, managing receipt payment and tracking medication times. Whereas those who do not develop the skills from childhood and are not able to learn until adulthood, usually have problem with counting and working with figures. This probably explains the problem encountered by some adults who find it difficult to count and to even trade because they do not know how to carry out simple calculation of giving back a change to customers who come to buy from them. Therefore, it is very important that educators and the caregivers ensure that children have a good foundation in numeracy skills such as number sense, measurement and geometry to equip them for their future live in developing the skills valued in industry and university.

Numeracy is seen as an important skill that is required in most careers, whether a cook or a farmer, a carpenter or a mechanic, a shopkeeper or a doctor, an engineer or a scientists, a musician or a magician. In addition, numeracy especially number sense is basic skills that thrive in day-to-day activities, hence, it should be seen as an important prerequisite to be acquired before preschool leaving age. Some essential skills can actually be attributed to the good development of numeracy skills such as critical thinking, creativity and problem-solving skills. These skills can be observed in many activities involving numbers, counting toys, identification, matching/sorting of numbers, colours or shapes with objects, sharing candy among friends and tracking time which children experience while playing. These observations make it imperative for caregivers to implement playful learning strategy such as guided play for instructional delivery that will encourage the attraction and receptive attitude among preschoolers in order to help them develop interest to acquire numeracy skills easily

Play-based learning

Play-based learning is described as a context for learning through which children organize and make sense of their social world as they actively engage with people, object and representations (maema, Koech & Muriungi, 2018). Play in many ways has been reported as a tool for children to learn about the world in their environment and can help to achieve dispositions for learning. Froebel (1964) noted that young children are different from older children. He proposed that learning should begin from where the children are and prescribed an approach in preschool based on play, learning and work. Montessori (1991) described play as work for children and explained that in their play they learn constructively. Vygotsky

(1971) sees play as a mechanism for propelling children to master a task. There are different forms of play which include guided play.

The government has earlier foreseen the importance of play activities hence she included in the National policy of Education (2014) the involvement of manipulation of objects in the environment of teaching-learning process in early childhood education. It becomes imperative for the government to encourage the implementation of the policy by making available play materials in early childhood centres so as to encourage the use of guided play for instructional delivery especially for numeracy (Uzoachima, 2016). Through proper utilization of these play material for guided play teaching-learning process will be fun and children would develop positive attitude towards the development of numeracy skills from pre-school.

Guided play method

Guided play has a considerable role and a positive impact on preschoolers education therefore by providing varieties of toys and play materials, they would be challenged to use their minds, bodies and feelings in learning process (Orji 2013). Orji further explained that children's play materials which are predominantly toys help them to move from one level to higher level of thought as they play. Ching (2018) in his research findings revealed that kindergarten teachers view play-based learning as an effective approach to teaching young children, and recognize the benefits of adopting play-based learning in class. However, the lack of knowledge about adopting play-based pedagogy, of time and space and of support from school and parents, all were identified as affecting the implementation of play in kindergarten practice, which causes a deviation between teachers' beliefs and practice.

Guided play activities help preschoolers develop numeracy skills and doing so can be fun. It promotes working memory and improves attention and increases other basic cognitive skills.

Guided play method helps the preschooler achieve the following

- **Number concept activities:** Counting help children learn number sequence – but they need to develop basic understanding of numbers first. Three important number concepts are one-to-one correspondence (each object is counted by once). Cardinality the last objects, and invariance the number of objects do not change if they are configured differently – for instance, spread out or placed in a circle.)
- **Count objects in every day contexts:** Count the buttons on your child's shirt, the oranges you put the grocery bag, the forks needed to set the table or the stairs to the front door. Start with small numbers (no more than five) and add a few as your child is ready for more of a challenge.
- **Put small objects in a row:** Gather some coins and ask your child how many there are. After they have counted them, rearrange them in a circle or row and ask them again. Don't be surprised if they have to count a second time. But if they automatically answer without counting, you will know they have mastered number in variance
- **Find objects that go together:** If your child has difficulty with one to one correspondence, find objects that correlate such as spoons and forks, cups and saucers and horse and cowboy figurines and ask them to pair them together. As they do, have them count each set of objects to help reinforce that each pair consists of the same number

- **Play board games that involve counting:** Simple board games like candy land and chutes and ladders help preschoolers recognize numbers and count moves. More complex games involve two dice instead of one or doubling the number that comes up for each move
- **Geometry and spatial understanding activities:** In guided play method, children develop a basic understanding of geometry and spatial relations by playing with building toys like blocks. This also encourage geometry related skills with the maths activities to do at home
- **Identify shapes in your home:** Find basic shapes around the home such as rectangles in light switches, squares in window planes, and circles in clocks. Ask your and child to explain how they differentiate each shape by their defining features (for instance, a triangle had three connected sides) and non-defining features such as the position or size of the triangle
- **Measurement activities:** Your child will learn many forms of measurement (length, height, weight, size and quantity). Embed these concepts into everyday life with these activities for preschoolers.
- **Compare feet sizes:** Place your foot next to your child's foot and ask them which is longer or bigger. Have a ruler or tape measure on hand and help them differentiate between long and short, large and small.

Conclusion

Literatures show that the availability and utilization of play materials for guided play enhance the acquisition of numeracy skills in early childhood education. It also ascertained that there is significant relationship between guided play strategies and acquisition of numeracy skills among preschoolers. This implies that an improper alternative method could yield traumatic experience for both the child and caregivers. Children should be encouraged by caregivers to engage in meaningful play as they learn especially numeracy skills such as number sense skills using guided play which involves counting an identification of numbers, measurement skill, sorting of objects, addition and subtraction skills. Neglect of the use of guided play could otherwise become difficult for children to acquire the accompanying skills.

Recommendations

Based on the foregoing is recommended that:

1. Children should be encouraged by caregivers to engage in meaningful activities during their play, build blocks, lego, construction, and other educational games activities to boost their learning and acquisition of numeracy skills.
2. Caregivers should be innovative in learning process by applying the guided play strategy in the teaching-process for acquisition of numeracy skills.
3. Caregivers should make learning interesting and fun for the children integrating guided play into every learning activity especially numeracy.
4. Caregivers should use appropriate toys, games, rhyme and songs for teaching and learning activities also play with the children.
5. The caregivers should be creative in choosing the type of play and play materials that will enhance the acquisition of numeracy skills.

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