Using Idoma Cultural Puzzle and Number Riddle Game (Odiyonee) in the Development of Children's Cognitive Ability among Idoma-Nigerians: Bilingual Approach

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Abstract

Odi Yonee is the Idoma cultural puzzle and number riddle game used as an evening activity to teach children how to count objects or figures. This study seeks to examine its educational approaches and roles in the development of children's cognitive ability. It uses cultural instructional techniques in an intellectual condition to impact on the knowledge of Idoma pupils. Its objectives are to help modern teachers develop new ideas with the use of interpretation from cultural and environmental data as a source for the teaching and learning process in modern schools. A study like this will guide our present-day curriculum developers and school teachers to adjust their planning and methods of teaching to the mentality of their pupils by making use of the child's cultural and environmental data.

Keywords: *Idoma cultural puzzle, number riddle game and development of children's cognitive ability*

Introduction

This study is based on the Idoma speaking people of Benue state, Nigeria. The Idoma ethnic group occupies seven local government areas of Benue state, where they have a population of nearly a million people (National Population Census (NPC) (1991)), Amali (2000). In traditional Idoma society, Odi yonee, or a puzzle

and number riddle game, is a game playing session that usually takes place in the evening when children are gathered after an evening meal. Amali (1980) noted that is a form of riddle that is used as a source of children's cognitive development in society.

Piaget (1950), Bloom (1956) and Brunner (1947) claimed that the cognitive ability involves a complex set of processes that concern the acquisition of knowledge and its use. They also asserted that the content and course of cognitive development are influenced by environmental factors, climate and geographical region, society, culture and the innate capacity of the individual, through the process of cognitive development (Bame and Therese, 2012). Thus, cognition requires stimulation of the senses, perception and memory of the child, which can lead to the development of meaningful language, reasoning capacity and creativity (Daniel, 2014 and Emily, 2015).

In the traditional Idoma society, as in other Nigerian societies, lack of toys, books, objects, shapes, and colours in the early years of the child's development have been found to have an adverse effect on his or her cognitive development. With such a background, it is easily discernable that the use of Odi Yonee-puzzle and number riddle game would have far-reaching positive effects on the cognitive development of the child when properly utilized.

Its method of teaching and presentation is essentially oral, using the Idoma language as a medium of communication and instruction. Ethnologically, the Idoma language belongs to the Kwa language family (Armstrong, 1955 and 1970, Erim, 1999). The contents in Odi Yonee are based on what the child can perceive, remember, interpret and relate; this vowel helps in education to improve learning (Blorm, Madaus and Hasting, 1984).

The purpose of the study

The study sought to examine the cultural technique used in imparting and in developing the knowledge of the younger members of the Idoma society. It is to show the general educational role of Odi Yonee, with the use of cultural elements and environmental data used in intellectual conditions to impart knowledge to children. It is also to develop, in teachers and curriculum designers, new ideas to acquire intellectual interpretation from cultural environments that can be useful in Nigerian conventional schools.

The Objective of this study

The objectives of this study were to:

- illustrate how Odi Yonee puzzle and number riddle game sessions are used for the cognitive development of children, with the use of cultural elements and environmental data as sources.
- show the value of human and natural settings in the child's environment as sources of intellectual development.
- demonstrate the values of the indigenous teaching method, which is the basis for fostering societal values.
- help to eliminate over-reliance on foreign concepts of self-knowledge and
- reinforce personality identity of the Idoma ethnic group.

Methodology

Odi Yonee usually takes place in the evening among the children aged 3–6. It is like a kindergarten class. The teacher is usually a mature person or an adult. The Idoma people use the game of Odi Yonee puzzle and number riddle game to teach children to count. It has rules and formulas. For example, a child that has learnt the procedures of counting based on the classification of objects presented to him or her can do it so perfectly that at times it takes the form of tongue twisting. For the mistake to become so apparent, counting has to be done fast. The procedure is that, in reciprocal manner, the teacher serves as the 'guidance' and the children constitute the class. Chorus or group answer is used to address the teacher's questions or prodding. Answers, when given fast enough, would sound like a chorused tongue twisting exercise. The class teacher acts as 'supervisor' or 'moderator' and corrects their errors when the need arises.

Before the commencement of the teaching and learning exercise, the composition is as presented below:

1. The class is made up of a teacher or an adult. The teacher is the moderator and guidance and he is responsible for checking errors and mistakes made during the exercise. There is also a class prefect, who acts as supervisor, while the other pupils in the class chorus the required answer.
2. The pupils are seated in a circle or in an arc formation as in Figures A and B below:

Figure A: The pupils are seated in a circular classroom with the teacher in the centre

Figure B: The pupils are seated in an arc facing the teacher

The Teaching Apparatus

This includes the following apparatus:

a. Bush

b. Lizard

and

c. Persons

The Teaching and Learning Exercise:

The teacher runs the class by asking the pupils. The pupils respond to his questions in chorus. For the purpose of illustration, the exercises used for this study are ten persons. It can, however, be continued to infinity. The procedure is presented in bilingual form i.e. English and Idoma and goes like this:

1. English

Teacher (Q):

What's for the evening!

Idoma

Odi Yonee!

Pupils (A):

Grass for the evening

Aci Yonee

2. English

Teacher (Q):

What's for the evening!

Idoma

Odi Yonee!

Pupils (A):

A Lizard chases the grass

Apa na Aci

3. English

Teacher (Q)

What's for the evening!

Idoma

Odi Yonee!

Pupils (A):

A dog chases a lizard,
the lizard chases the grass

Ewo na Apa,
Apa na Aci

4. English

Teacher (Q):

What's for the evening!

Idoma

Odi Yonee!

Pupils (A):

A man chases a dog,
the dog chases a lizard and
the lizard chases the grass.

Ocee nEwo, Ewo na Apa,
Apa na Aci

5. English

Teacher (Q): What's for the evening!

Pupils (A): Two men chase one man,
one man chases a dog,
the dog chases a lizard,
and the lizard chases the grass.

Idoma

Odi Yonee!

Acepa nocee, ocee nEwo,
Ewo naApa, Apaa na Aci

6. English

Teacher (Q): What's for the evening!

Pupils (A): Three men chase two men,
two men chase one man, one man
chases a dog, the dog chases a lizard,
and the lizard chases the grass.

Idoma

Odi Yonee!

Aceta n Acepa, Acepa
nocee, ocee nEwo,
Ewo naApa, Apaa na Aci

7. English

Teacher (Q): What's for the evening!

Pupils (A): Four men chase three men,
Three men chase two men,
two men chase one man,
one man chases a dog,
the dog chases a lizard,
and the lizard chases the grass.

Idoma

Odi Yonee!

Acene nAceta, Aceta nAcepa
Acepa nocee, ocee nEwo,
Ewo naApa, Apa na Aci

8. English

Teacher (Q): What's for the evening!

Pupils (A): Five men chase four men,
four men chase three men,
three men chase two men,
two men chase one man,
one man chases a dog,
the dog chases a lizard,
and the lizard chases the grass.

Idoma

Odi Yonee!

Aceho nAcene Acene nAceta,
Aceta nAcepta Acepta nocee,
ocee nEwo, Ewo naApa, Apa
na Aci

9. English

Teacher (Q): What's for the evening!

Pupils (A): Six men chase five men,
five men chase four men,
four men chase three men,
three men chase two men,
two men chase one man
one man chases a dog,
the dog chases a lizard,
and the lizard chases the grass.

Idoma

Odi Yonee!

Acehili nAceho, Aceho
nAcene, Acene nAceta,
Aceta nAcepta, Acepta nocee

ocee nEwo, Ewo naApa, Apa na Aci

10. English

Teacher (Q): What's for the evening!

Pupils (A): Seven men chase six men,
six men chase five men,
five men chase four men,
four men chase three men,
three men chase two men,
two men chase one man,
one man chases a dog,
the dog chases a lizard,
and the lizard chases the grass.

Idoma

Odi Yonee!

Acahaapa nAcehili,
Acehili nAceho, Aceho
nAcene, Acene nAceta,
Aceta nAcepta, Acepta nocee
ocee nEwo, Ewo naApa,
Apa naAci

11. English

Teacher (Q): What's for the evening!

Pupils (A): eight men chase seven men,
seven men chase six men,
six men chase five men,

Idoma

Odi Yonee!

Acahata nAcahaapa
Acahaapa nAcehili,
Acehili nAceho, Aceho

five men chase four men,
 four men chase three men,
 three men chase two men,
 two men chase one man,
 one man chases a dog,
 the dog chases a lizard,
 and the lizard chases the grass.

nAcene, AcenenAceta,
 Aceta nAcepta, Acepta nocee
 oceenEwo, Ewo naApa, Apa naAci

12. English

Teacher (Q): What's for the evening!

Pupils (A): Nine men chase eight men,
 eight men chase seven men,
 seven men chase six men,
 six men chase five,
 five men chase four men,
 four men chase three men,
 three men chase two men,
 two men chase one man,
 one man chases a dog,
 the dog chases a lizard,
 and the lizard chases the grass.

Idoma

Odi Yonee!

Acahane nAcahata,
 Acahata nAcahaapa
 Acahaapa nAcehili,
 Acehili nAceho, Aceho
 nAcene, Acene nAceta,
 Aceta nAcepta, Acepta
 nocee ocee nEwo,
 Ewo naApa, Apa naAci

13. English

Teacher (Q): What's for the evening!

Pupils (A): Ten men chase nine men,
 nine men chase eight men,
 eight men chase seven men,
 seven men chase six men,
 six men chase five men,
 five men chase four men,

four men chase three men,
 three men chase two men,
 two men chase one man,
 one man chases a dog,
 the dog chases a lizard,
 and the lizard chases the grass.

Idoma

Odi Yonee!

Acigwo nAcahane,
 Acahane nAcahata,
 Acahata nAcahaapa,
 Acahaapa nAcehili,
 Acehili nAceho, Aceho
 nAcene, Acene nAceta,

Aceta nAcepa, Acepa
 nocee ocee nEwo,
 Ewo naApa, Apa naAci

As the teacher continues to ask “what's for the evening”, the pupils continue to chorus the answer by adding one number or one man each time the teacher asks the lead question. For each question asked, the pupils repeat every process

of the counting order until they end with “the lizard chases the grass”. The joy in the game of using Odi Yonee to learn numbers is when the pupils make a mistake in following the procedures accurately. It usually results in teasing the class or the particular child who fumbled in the counting order. To correct such failure, the teacher uses his discretion by allowing those individuals or the class to repeat the process of the counting order. However, social reinforcement such as smiles, taunting such as a nod, booing, eye contact, a simple statement, have been found to be greatly appreciated and they facilitate classroom learning and help to contribute to the cognitive development of the pupils.

Contribution to the Cognitive Ability of the Child

This type of the Idoma riddle game has made the following contribution to the child's cognitive ability:

- The use of number language as presented in the grouping of men and the of pertinent questions is extremely important in the child's mathematical development.
- It presents an adequate pattern of learning, where arrangement is orderly and the material that is to be memorized is arranged in an orderly way to give it form or make it more easily understood.
- It creates a pattern of associations, whereby we link the things to be remembered with some easily remembered objects. Here we learn numbers by counting men in groups and capturing the image of the learning experience by associating numbers with a dog, a lizard and grass. This is achieved by mental processes such as reasoning, remembering or recalling what cognitive learning is.
- It encourages effective learning since the pupils repeat each process after adding a number. The more often we do something, as noted by Farrant (1990), the more established it becomes as part of our total learning ability. Thus, this riddle game helps to emphasis the importance of activity both in its doing and in repetitive aspects as an integral part of the learning process.
- It is learned in contents that are meaningful to the children as it stimulates their imagination due to the vivid learning experience it offers.

Implication of this study for Nigerian education

The following are the implications for teachers:

- The knowledge of cognitive development is important in teaching because it is through cognitive development that the child learns to adapt to his environment.
- Since studies have shown that there is cognitive deficit among African school children, African teachers are therefore called to seek ways of how this cognitive deficit can be ameliorated in Nigerian school pupils. Including Odi Yonee or puzzle and number riddle game in the school lesson plan and in the teaching methods could be beneficial.
- Similar to Murphy's (2005) assertion, this study has implications for teaching, since it helps children to acquire language and invent new verbal means.

Conclusion and recommendation

The presented study has shown the cultural techniques used in the teaching of numbers to Idoma children at the most elementary levels (beginners) of their cultural education. Thus, it is recommended for curriculum designers and modern school teachers to show the value of the use of human and natural elements in the child's environment as sources of intellectual development in the teaching and learning process.

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