

Cognitivity of Rollograph In Language Teaching

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ABSTRACT

This study investigates cognitivity of rollograph as an effective resource for teaching and learning in three major Nigerian Languages in Basic one pupil. The study reviews previous standard works on improvised instructional materials (rollograph). The study adopts the Piaget's 1936 theory of cognitive development which recognized that learning involves association established through cognitivity and repetition of reinforcement. The study reveals that rollograph is an improvised visual instructional material constructed with local materials and that it is useful as a self-tutorial guide for teachers. The study also reveals that rollograph helps school management to spend less on imported and expensive commercially produced media for instruction. The study recommended that teachers should be encouraged to attend seminars, workshops and school authorities should help in subsidizing the procurement of local materials for improvisation of instructional materials for teaching and learning in basic one pupil.

Keywords: *Rollograph, teaching, learning, major Nigerian languages.*



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1.1 Background to the Study

Language is a tool of communication, a channel of values, traditions and cultures (Babarinde & Aderibigbe, 2016). Communication within a human community for any specific purposes will be achieved when it is done in the native/popular language of the people. In 2006 the African Union declared it a year of African indigenous languages. To achieve this therefore, we need adequate well equipped improvised teaching and learning materials in the classroom. Akude cited in Owuamanam (2017) observed that most primary schools are ill-equipped with instructional materials;

most primary schools are ill-equipped for the purpose of teaching young children. Rarely is there enough money to buy anything but the barest materials such as chalk, pencils and exercise books. Hardly, ever does one find a flourishing, interesting and well presented classroom.

Schools in Nigeria according to Ibrahim, Nafisa and Oluranti (2016) have inadequate equipment, inefficient instructional materials, inappropriate application of teaching methods and qualified teachers with ill-equipped classroom, language learning cannot be effective. For methods of language teaching; see Imu (2018), Imu & Amazu (2023). However, the paper is looking at how language teachers can improvise and use the Rollograph for the teaching and learning languages in Basic one.

1.2 Statement of the Problem

The ability to convey any intended message effectively and meaningfully to the learner is the teachers' ultimate goal. Learning cannot be fully successful without the use of instructional materials. Lack of these instructional materials hinders effective language learning in the classroom. Ill-equipped classrooms demoralize students' knowledge, abilities and skills to monitor their assimilation of information and limit their overall development and upbringing, rollograph will help in filling the gap of teaching in Basic one pupils.

1.3 Purpose of the study

The main purpose of the study is on how a teacher can improvise instructional material (rollograph) for teaching Basic one pupils.

2. Literature review

2.1 Theoretical studies

Rollographs/instructional materials are educational resources used to improve students technology, abilities, and skills to monitor their assimilation of information and to contribute to their overall development and upbringing (Encyclopedia 2,2011). Instructional materials can be grouped into two namely; real or natural materials and artificial or representations of real materials.

- 1) Real or natural materials are demonstrations as patterning (imitation), speech distribution, gesture, signals and facial expressions. These are mainly utilized in the early years of children before going to school.
- 2) Artificial or representation of real materials include displays of materials, the blackboard, charts and drawings, illustrations, diagrams, and improvised objects and materials.

The onus of this paper lies on how a teacher can improvise and use the rollograph for the teaching of the major languages in teaching Basic one pupil. Instructional materials can be improvised means to make without extensive preparation by using those materials and devices that are locally available within the environment which do not involve high cost in substitute to factory made imported equipment (Obianwu as cited in Owuamalam 2017).

2.2 Empirical studies

Owuamalam (2017) investigates on how to achieve sustainable teaching and learning in primary schools through the use of rollograph. The study looked out how devoted teachers can use the improvised rollograph for the teaching of the three major languages (Igbo, Yoruba and Hausa) in Nigeria. The focus was in teaching some concepts of Hausa, Yoruba and Igbo languages.

Udegbe (2003) investigates the effects of the use of template and rollograph on students' achievement and interest in geometry. The study showed that students taught with templates and rollograph achieved more and showed more interest than those taught with expository method. None of the above empirical works were done in Basic one Pupil.

2.3 Theoretical framework

This study adopts Piaget's cognitive development theory of (1983). Cognitive theorists recognized that must learning involves association established through cognitivity and repetition of reinforcement; although they stressed that its role is in providing feedbacks about the correctness of responses as a motivator. Cognitive theorists review learning as involving the acquisition of reorganization of the cognitive structures through which human process store information. Cognitive theorists believed that materials are analyzed and sequenced, often to a simple to complex or hierarchical order (Piaget, 1983). Cognitivism advocated the fundamental structure of curriculum to begin with simple contents and later graduated to complex contents.

Piaget stressed the importance of teaching the young learners (7-12 years) with concrete materials which involve the employment of all their senses of sight, touch, smell, taste and hearing.

2.4 Summary of literature review

It is evident from the proceeding review that the works in instructional materials or rollograph are all standard resource materials. For instance, the study reviewed works on rollograph (instructional materials, improvised and already made devices). Empirical and theoretical studies were also reviewed. The study observed that rollograph is the bedrock of all standard improvisation though yet to receive proper attention in teaching and learning languages. Hence, it is very necessary that further researches be carried on rollograph as a resource of effective teaching and learning languages in the primary schools.

3. Cognitivity of rollograph in teaching the major Nigerian languages (Basic One)

In Nigeria, basic education is education given to children aged 0-15 (FRN, 2013). It is made up of Early Child Care and Development Education (ECCDE) known as Daycare or Crèche (0-4); one year of pre-primary, six years of primary and three years of junior secondary education. The content of basic education curriculum at the crèche and pre-primary is mainly focused on socialization, numbers, colours, shapes and forms. The language of instruction is the language of immediate community. The indigenous language is the language of instruction for the three years of the junior primary education. The three major Nigeria languages are taught in the schools either as first language (L₁) or second language (L₂) (Offorma, 2017).

The process of learning cannot be fully successful without the use of instructional materials no matter the subject areas. The three languages cannot be exempted from this emphasis on the use of teaching materials, as their various areas of concern require the use of such materials.

Instructional materials are educational resources used to improve student's knowledge, abilities and skills to monitor their assimilation of information and to contribute to their overall development and upbringing (encyclopedia 2, 2016). Piaget in his cognitive theory, at the concrete operational stage limits the child to dealing with actual experiences

(Owuamalam, 2017). This means that it is important to use teaching and learning materials in order to allow the learner to learn at their own convenient time. The use of different teaching materials for the same objectives expedites action to overcome boredom and create interest.

Instructional materials can be improvised or already made. Improvisation means to make or do hastily without extensive preparation and using those materials and devices that are locally available within the environment and do not involve high costs, in providing alternative or substitutes to factor made imported equipment (Obianwu as cited in Owuamanam, 2017). This implies that a resourceful teacher can find alternative materials to use where the recommended ones are not available.

According to Ugwueke (2012) improvisation refers to “selection or provision of substitute for something not readily available”. It is the process by which educational materials can be designed and developed using locally available, materials to meet specific instructional needs. Improvisation is linked with the concept of self-reliance. When the available resources in our environment are used, they help us spend less on imported and expensive commercially produced media. In the course of improvisation, models can be used when the real material is not available. Models are always similar in appearance to the things they represent (Onyegamezi as cited in Owuamanam 2017). They may be of the same size, available in different forms, example of a model however is a rollograph. Improvisation can bring out inherent talent in pupils and teachers and in the long run lead to our self-sufficiency in both human and material resources.

3.1 Rolliograph as an effective resource for teaching and learning

A rollograph is a visual instructional material. It is an improvised material constructed with local things. Rollograph looks like television set with handles-one upwards and the other down wards. The upper handle is used in rolling in the films while the lower one is used in rolling out the films when properly produced and combined with the teacher’s explanation, it is very effective and enticing. It is useful as a self-tutorial guide. The rollograph is operated using the handles. The teacher or operator can be rolling out the films as at when needed with one hand for the handles. After using the films, he can roll them in with the other hand.

The importance of creating lively atmosphere in the classroom cannot be over emphasized. Every teacher can do this because every teacher is devoted to his teaching as it gives joy and a sense of fulfillment. Teacher who knows the importance of instructional materials in his teaching can go ahead with the much needed improvisation. In constructing the rollograph, the teacher needs plywood, white sheets for drawing the films, blue, red and yellow colours of the marker for labeling. Paint is also included for beautification. There are no specific rules guiding the measurement used in the construction of rollograph. The teacher will consider his class size as to know the size to make. According to Owuamanam (2017) the following should be taken into account when constructing rollograph:

1. The white sheets will serve as the films or software. Drawings of all pictures to be shown in the rollograph will be made accordingly. The teacher will join the films together at the ends to avoid any observation during the illustration and reviewing.
2. The screen will be provided with glass as that of the television.
3. The handles will be two in number. One should be placed upwards and other should be placed downwards. These handles are for rolling up and down the pictures or films.

The rollograph is operated using the handler. The teacher or the operator should be rolling out the films as at when needed with one of the handles. After using the films, the operator can roll them in with the other handle.

After reading the passage in the table to the pupils, the teacher will then use the improvised rollograph to illustrate what is in the table below. He will be rolling out the films one after the other accordingly. With the illustration and explanation, the pupils will be able to answer simple questions on the table correctly.

For example, the pupils would be asked to mention the following concepts and what they are called in the three major Nigerian Languages – Igbo, Yoruba, and Hausa.

Table I : Major Nigerian Languages

English	Igbo	Yoruba	Hausa
Teeth	Eze	eyin	Hakoro
Ball	boḡḡlu	bol	Kolo
Plate	efere	awo	farantin karfe
Pencil	nkpisi edemedede	ikowe	fensir
Egg	akwa	eyin	kwai

4. Summary of findings

This study looks at the use of rollograph as an effective resource for teaching and learning in the three major Nigerian languages in Basic one. The study reveals that rollograph is an improvised visual instructional material constructed with local materials. The study also reveals that rollograph is useful as a self-tutorial guide for teachers which looks like television set with handles – one upwards and the other one downwards.

4.1 Conclusion

Rollograph is a visual instructional material which is improvised and constructed with local materials for effective resource in the teaching of Basic one pupils. Its function is to help teachers meet specific instructional needs. As rollograph is produced with local resources, it helps the teacher/management to spend less on imported and expensive commercially produced media for teaching and learning. With it therefore, models can be used when real materials are not available.

4.2 Recommendation

Recommendations are made for teachers or resource persons to train on how to construct, procure and preserve improvisation materials. The study therefore recommends that:

1. Teachers should be encouraged to gain practical experience through seminars, workshops and conferences organized by both Federal and State Ministries of Education.
2. Schools should help in providing subsidy for the procurement of materials needed for improvisation.
3. Adequate storage facilities should be ensured by the school authorities for their preservation.

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