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INSTRUCTIONAL MATERIALS IMPROVISATION AND ITS EFFECT ON UPPER BASIC STUDENTS PERFORMANCE AND RETENTION IN IGBO LANGUAGE IN EBONYI STATE

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ABSTRACT

The study focused on instructional materials improvisation and its effect on upper basic students' performance and retention in Igbo Language in Ebonyi State. The study adopted pretest-posttest, control group, quasi-experimental design. Three research questions and two null hypotheses guided the study. The population of the study comprised 1,600 JSS 2 students from fourteen (14) public Junior Secondary Schools in Ohaozara Local Government Area. The sample comprised eighty (80) JSS 2 students selected from two out of the fourteen (14) public junior secondary schools using intact classes. The instrument for data collection was an Igbo Language Achievement Test (ILAT). The data collected was analyzed using mean and standard deviation to answer the three research questions, while t-test was used to test the hypotheses at 0.05 level of significance. The results indicated that students who were taught with improvised instructional materials performed better than their counterparts in the control group taught with conventional method. The study also revealed that students taught indigenous language (Igbo) with improvised instructional materials significantly retained their learning Igbo language, more than the students in the control group taught with the conventional method. Group. Based on these findings, it was recommended that Indigenous language (Igbo) teachers should try to improvise instructional materials for teaching and learning of Igbo language and they should also encourage their students to improvise instructional materials for teaching and learning of Igbo language in Secondary schools.

Keywords: Effectiveness, Improvised, Instructional Materials, Igbo Language, Academic Achievement.

Introduction

In education, it is generally agreed that instructional materials are some of the most important devices which both teachers and learners can use to enhance the quality of an instruction. Results from various research studies have shown that instructional materials are facilitators of teaching and learning activities when properly used (Nwigwe, 2020; Ndem, 2020; Ndem, Nwigwe & Eze 2020). Availability of suitable instructional materials in good supply and in rich variety and range is therefore essential in education and especially crucial for the achievement of curriculum objectives. The teaching and learning of Indigenous languages, especially Igbo language, without instructional materials may results in poor academic achievement.

Instructional materials refer to a great variety of resources, which the teacher can use to illustrate the point he wishes to emphasis in his teaching to make the lesson vivid and more interesting (Nwigwe, 2020). They help to increase learner's motivation, recall earlier learning, activate learner's response; give speedy feedback and encourage appropriate practice. Instructional materials can also be referred to as varieties of things such as printed materials, audio, visual and audio-visual material used by the

teacher to teach. Any material used by the teachers and the learners to facilitate learning can be referred to as an instructional materials (Nwigwe, 2020). It is a known fact that Igbo language has an important position in the school curriculum. It is one of the subject being taught in primary, secondary and tertiary institutions, as well as the mother tongue of Igbo speaking people in Nigeria. Igbo language is necessary for anybody of Igbo extraction if he has to study and understand the culture of the Igbo society. Igbo language forms the culture of Igbo people. It is important for the education of a child to start with his mother tongue because it is the language of his culture.

Igbo language and two other languages, Yoruba and Hausa are to be studied and learnt by pupils and students in the primary and secondary schools throughout the country, according to the National Policy on Education (FRN, 2014). These languages are among the core subjects in the primary and secondary school system, which the students and pupils must pass before graduation.

As a result of the importance attached to the subject (Igbo), teachers make conscious effort using relevant teaching strategies with or without instructional materials to the teaching of the language. Their efforts are not being felt, since most of the necessary materials are not made available, worst still, funds are not made available to procure at least some of these instructional materials due to insufficient funding being allocated to education annually (Nwigwe, 2021). She recommended that teachers should seek to find and present alternative techniques in addition to Igbo language textbooks in use, in order to make Igbo more interesting for the learners. Thus, improvisation came into place as an alternative measure to procure instructional materials locally or handmade, among the teachers in our various schools, to enable the learners have better understanding of what they are taught and change for better.

Improvisation is the make-shift of a learning material. According to National teachers Institute (2009), improvisation is the making of substitutes from local materials found at home or school premises when the real or original equipment is not available.

Improvisation is done either where the readymade material is not available or where it is available but could not be relevant to instructional objectives. The improvised materials should be able to convey special instructional message just as the original. According to Ikwuka (2016), Improvised instructional materials promote quick understanding and give first hand learning experiences which is not easily forgotten. This means that such learning experiences are well retained.

Academic achievement of students refers to the progress students make in schools as measured by their scores. For students to learn effectively, they ought to be actively involved in the teaching and learning process. The argument of some researchers (Nwigwe, 2020 and Ume, 2009) is that the performance in indigenous language (Igbo) is poor because of lack of interest in the subject by both the students and teachers. They contended that appropriate method and media could change the negative attitude of the generality of the public towards the subject (Igbo).

It is a common practice among indigenous language (Igbo) teachers in secondary schools to adopt conventional and theoretical method as a way of teaching the language. Many Igbo language teachers in secondary schools in Ebonyi State seem to follow this trend. Some of them said that there is unavailability of instructional materials; some seem to have no interest in making use of instructional materials, while some seem to lack the skills and competence for using instructional materials in teaching. Looking at the poor performance of students in the senior certificate examination as reported by Nwigwe, (2020) and Agwu (2013), there

is the need for Igbo language teachers to use instructional materials to improve teaching and learning of indigenous language (Igbo). Unfortunately, most of the secondary schools in Ebonyi lack these instructional materials which teachers will use to impact the knowledge and skills required (Nwigwe, 2021). These observations and research findings triggered the desire for this study find out the effectiveness of improvisation of instructional materials on junior secondary students' academic achievement and retention in an indigenous language (Igbo).

Purpose of the Study

The main purpose of the study is to investigate the effectiveness of improvisation of instructional materials on Junior Secondary Students academic achievement in an indigenous language (Igbo) in Ebonyi State. Specifically, the study determined:

1. The pre-test mean achievement scores of students in Igbo language in the experimental group and the control group.
2. The pre-test and post-test mean achievement scores of students taught Igbo language with improvised instructional materials and those taught with the conventional method.
3. The pre-test and retention of learning scores of students taught Igbo language with improvised instructional materials and those taught without it (conventional method).

Research Questions

1. What are the comparative pre-test mean achievement scores of students in Igbo language in the experimental and the control group?
2. What is the pre-test and post-test mean achievement scores of students taught Igbo language with improvised instructional materials and those taught without it (conventional method)?
3. What is the post-test mean and the retention of learning scores of students taught Igbo language with improvised instructional materials and those taught without it (conventional method)?

Hypotheses

$H0_1$: There is no significant difference between the pre-test and post-test mean achievement scores of students taught Igbo language with the improvised instructional materials and those taught without it (conventional method).

$H0_2$: There is no significant difference between the post-test mean and the retention mean scores of students taught Igbo language with improvised instructional materials and those taught without it (conventional method)

Methodology

This study adopted a pretest-posttest, control group quasi – experimental design in determining the effect of improvised instructional materials on students' achievement in an indigenous language (Igbo). The population of the study comprised 1.600 Jss2 students from fourteen (14) public Junior Secondary Schools in Ohaozra Local Government Area. Simple random sampling technique was used to select two out of the fourteen public Junior Secondary Schools in Ohaozara Local Government Area.

The sample comprised 80 Jss2 students selected from the two public Junior Secondary Schools. The two schools were randomly assigned to experimental and control group and intact classes were used. Each group consisted of 40 students in each of the respective schools.

Instrument for data collection was an Igbo Language Achievement Test (ILAT), which was made up of 20 multiple choice questions. The instrument, Igbo Language Achievement Test (ILAT) and the treatment, improvised instructional materials were validated by one Igbo language

expert and one Educational Technology expert. To verify the reliability of the instrument, a pilot test was carried out and a reliability co-efficient of 0.78 was obtained using Person Product Moment Reliability
Coefficient formulae.

Procedure:

The study lasted for eight (8) weeks. In the first week, the improvised instructional materials on Igbo language were developed by the researcher and with the help of the students, while some were drawn by artisans, which can be seen as pictures in the lesson plan of the experimental group. Secondly, the lesson notes on Igbo language for experimental and control groups were developed by the researcher and used as lesson plan throughout the duration of the teaching. The teaching was done with the help of their class teachers who served as the research assistants. The second week was used to administer the pre-test measure on both the experimental and the control groups. Next, the experimental group was exposed to the treatment (improvised instructional materials), while the students in the control group were taught with the conventional method by their class teacher both groups were subjected to post-test measures immediately after the treatment. The time interval between the pre-test and the post-test was eight (8) weeks. Mean scores and standard deviation were used to measure and to answer the research questions and t-test was used to test the hypotheses.

Results

Research Question 1

What are the comparative pre-test mean achievement scores of students in Igbo language in the experimental and the control group?

TABLE 1: Pre-Test Mean Achievement Scores For Experimental and Control Group.

Group	N	Mean	SD	t-cal	df	t-critical	Remarks
Experimental	40	3.44	0.82				
Control	40	3.40	0.80	0.72	78	1.96	NS

Df = 78; t-critical = 1.96 (0.72 < 1.96), NS = Not Significant.

T-calculated is less than the t-critical

Table 1 shows the mean achievement scores of the pre-test for experimental and the control group as 3.44 and 3.40 respectively, resulting to a mean difference of 0.4. The result is no significant. This shows that the experimental and the control groups were equivalent before the treatment.

Research Question 2: What is the pre-test and post-test mean achievement scores of the students taught Igbo language with improvised instructional materials and those taught with conventional method?

H0$_1$: there is no significant difference between the pre-test and the post-test mean achievement scores of students taught indigenous language (Igbo) with the improvised instructional materials and those taught with the conventional method.

TABLE 2: Pre-Test And Posttest Achievement Scores Of Experimental And Control Groups.

Group	N	Pre-test		Post-test		Mean gain Scores	Remark
		1	SD1	2	SD2		
Experimental	40	3.44	0.82	5.46	0.80	2.02	
Control	40	3.40	0.80	3.19	0.81	-0.21	

Table 2 revealed that experimental group had a mean gain of 2.02 and the control group had a mean loss of -0.21.

What is the post-test mean and retention of learning result suggests that the use of improvised instructional scores of students taught Igbo language with the materials is more effective than the conventional method improvised instructional materials and those taught with in teaching the indigenous language (Igbo).

TABLE 3: Post-Test Mean Achievement Scores And Retention Test Scores Of Experimental And Control Groups.

Group	N	Post-test	SD	Retention Test	SD	Mean gain
		Mean		Scores		
Experimental	40	5.46	0.80	3.36	0.88	2.1
Control	40	3.19	0.81	2.45	0.80	0.74

Table 3 shows that the experimental groups had score of 5.46 in the post-test and a mean of 3.36 in the retention

The result of the t-test in Table 5 showed that the calculated t-value (24.3) was greater than the t-critical of (1.96) at 0.05 significant. Thus, the null hypothesis two ($H0_2$), is rejected, meaning that there is a significant difference between the mean retention scores of the experimental and the control group.

Discussion of Findings

Before the treatment, the experimental and the control group were equivalent in their achievement of indigenous language (Igbo), as the difference between the pre-test measures obtained from both group was not found to be statistically significant. From the results, the findings of research questions two showed that students who were taught indigenous language (Igbo) with improvised instructional materials performed better than those taught without it (conventional method). The t-test analysis showed academic performance in indigenous language (Igbo) by the experimental group because of the use of improvised instructional materials. It is clear that the use of improvised instructional materials has enhanced the teaching and learning of Indigenous language (Igbo) among Junior Secondary students resulting in higher achievement gain scores by the learners. This agrees with the findings of Ikwuka (2016) in Mathematics, Obilor and Obubere (2019) in Social Studies, who in their separate studies found that students taught with improvised teaching material performed significantly better than those taught with the conventional method. This study also found that students taught indigenous language (Igbo) with improvised instructional materials significantly retained their learning more than the students in the control group taught with conventional method without improvised instructional materials. This implies that improvised instructional materials improved student's retention of learning than the use of the conventional method. These findings are in agreement with Akinmoyewe (2008), who reported that improvised instructional materials promote quick understanding and give firsthand learning experiences which are not easily forgotten (retained).

Conclusion

From the results obtained in this study on the effectiveness of improvisation of instructional materials on Junior Secondary Students achievement in indigenous language (Igbo), it was found that students taught using improvised instructional materials performed better than their counterparts taught using conventional method. Also, it was found that students taught indigenous language using improvised instructional materials had a higher mean retention scores than those taught using conventional method.

Recommendations

Based on the findings of the study, the following recommendations are put forward.

1. Indigenous language (Igbo) teachers should try to improvise instructional materials in the teaching and learning of Igbo language in secondary schools.
2. Indigenous language (Igbo) teachers should encourage their students to improvise instructional materials, to enable them have a better

understanding of Igbo language and culture.

3. The teachers-in-training should be exposed to courses in the design and production of instructional materials.
4. Teachers in Training Colleges should be adequately equipped to teach courses in design and production of instructional materials.

REFERENCES

1. Agwu, O. (2013). Error Analysis in written Igbo Essays of Junior School Students in Ebonyi State. *Unpublished M.Ed Dissertation.* Dept of Arts and Social Science. Ebonyi State University

2. Akinmoyewe, J.O. (2008). Effect of self-instruction on learner's academic performance in mathematics. *Journal of Science Teachers Association of Nigeria* 3(4), 3-5.

3. Federal Republic of Nigeria (2014). *National Policy on Education*. N.E.R.D.C. Lagos, Nigeria.

4. Ikwuka, O.J. (2016). Effect of Improvised instructional materials on senior secondary students' academic achievement in mathematics in Oshimili South Local Government Area. *Journal of Science Education and Technology.*

5. Ndem, J.U. (2020*). Basic Teaching Methodology in Education and Social Sciences.* Ave Maria Academic Publishers, Abakaliki, Nigeria.

6. Ndem, J.U; Nwigwe, N & Eze J.N (2020). Application of indigenous language (Igbo) from improving the teaching of vocational Agriculture at the Junior Secondary schools in Ebonyi State, Nigeria. *Journal of Education and practice,* 11(36), 24-29.

7. National teachers Institute NTI (2008). NCE/DLS Course book on Social Studies cycle 4, Kaduna.

8. Nwigwe, N. (2021). Effectiveness of Story Telling on Reading Comprehension and Written production of Indigenous language (Igbo) Learners in Primary schools in Ebonyi State, Nigeria. *Journal of Educational and Practice,* 12(23), 37-41.

9. Nwigwe, N. (2020). Availability and Utilization of Instructional materials for teaching of indigenous language (Igbo) in Public Junior Secondary Schools in Ebonyi State, Nigeria. *Journal of Education and Practice 12(*23), 37-41.

10. Obilor, E.I & Obubere M. (2019). Effect of teachers' use of improvised Instructional Materials on Junior Secondary Students Achievement in Social Studies in Obua/Oduali. *International Journal of Innovative Development and Policy Studies* 7(1): 44
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