

## Relative Effects of Demonstration and Videotape Mediated Instructional Strategies on Nigerian Secondary School Students Achievement and Retention in Yoruba Language

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**Abstract:** This study investigated the relative effects of demonstration and videotape mediated instructional strategies on Nigerian Secondary School Students' achievement and retention in Yoruba Language. The purpose was to find which of demonstration and demonstration with videotape mediated instructional strategies will influence better performance of students in Yoruba Language. The study employed the quasi-experimental pretest, posttest, control group design whereby three groups were assigned into treatment and control groups and they responded to pretest, posttest and retention test administered on them. The sample consisted of 135 junior secondary class two students selected from three secondary schools used for the study. The stratified random and cluster sampling techniques were used to select the sample. The research instrument used for the study was the Yoruba Language Achievement Test (YLAT) developed and validated by the researcher and administered on the subjects. The instrument was administered as pretest, rearranged and administered as posttest and was administered two weeks after that as retention test. The data collected were analysed using ANOVA, ANCOVA and the t-test. Three hypotheses were generated and tested at 0.05 level of significance and the results showed that both instructional strategies were significantly effective in the learning of Yoruba Language. The findings also show that the demonstration with videotape mediated instructional strategy was more significantly effective than the demonstration method alone. The findings also showed this same pattern of effectiveness on retention.

**Key words:** Relative effect, demonstration, videotape, instructional

### INTRODUCTION

Yoruba Language is one of the indigenous languages in Nigeria spoken predominantly by the people in southwestern part of the country. The aim of learning Yoruba language is to instil the Yoruba morals and traditional values into the learners who belong to the younger generation.

In recent time, observations have revealed that there is prevailing poor performance of students in Yoruba language in both internal and external assessments. Ordinarily one would expect that Yoruba language being the student's mother tongue would be easy to pass but the reverse is the case. This poor performance has been attributed to certain reasons. One serious problem is the inability of the students to communicate fluently in good standard form of Yoruba Language. Observations revealed that many of these students read poorly thereby making it difficult for them to comprehend what they have read. Another problem is the practicality of the language

itself to teach morals and cultural values which are gradually fading away in the society. Students who study Yoruba language often do not have their way in the labour market and this seems to discourage more students from learning the language (Abiri, 1982).

It was also observed that parents used to frown at it whenever their children speak Yoruba language at home (Olorunsola, 2002). Many of these parents refuse to buy relevant Yoruba text for their children. Moreso, the way many Yoruba teachers teach the subject is not encouraging. Many of them teach in abstract without using any instructional material. According to Ikudaisi (1986), it is a common phenomenon to see teachers of Yoruba language in the classroom teaching with difficulty because they do not use any element of instructional materials to aid their learning in secondary schools because they believe they are teaching their mother tongue, which they assume, the student have mastered from their respective homes. It is obvious that no effective mother tongue can take place without the use of

instructional materials like textbook, chart, models and so on by the teachers (Omojuwa, 1981; Oyinloye, 2002). Moreover, the attitude of students towards learning of Yoruba language nowadays seems to be very poor. WACE (2004) reported that many Yoruba students were very lazy and they handled the study of Yoruba language with levity.

The National Policy on Education, which makes Yoruba language a core subject, seems to have added to the problem. There is increase in the enrolment of the students offering Yoruba language and this is more than what the teachers can easily cope with. Teaching a large class is considered to be one of the major factors responsible for poor performance in Yoruba language. Yusuf (1980) asserted that, the increase in students population without commensurate increase in human and material resources affected the poor performance of secondary school students in Yoruba language in Ekiti State. Teachers now have classes filled up with students during Yoruba lessons. Many teachers find this very difficult to cope with and this will eventually lead to poor communication from the teachers to the students.

One of the greatest problems the researchers observed is inadequate textbook on the part of the students. The WACE (2008) reported that candidates could not study the recommended text for literature because they did not have copies for the study. Teachers therefore, find it difficult to give exercises to students. The students only rely on class work, which may not be enough to pass any examination. The researchers also observed that if students are taught a particular topic in the morning and they are asked questions on the same topic in the afternoon there may be no favourable response but if you ask questions on a particular film watched a month ago, they will not leave a single scene out of the film in their response. There is every indication, therefore, that the students are more relaxed when watching film than mere listening to teachers.

Nwosu (1984) asserted that, for the teacher to operate effectively, he has to adopt strategies that would prepare the mind of the students and sustain their interest in what is being taught. It is, therefore important to find if their interest in watching films could be utilized to make them learn Yoruba language effectively. Again, suppose the teacher engages in demonstrations often, would that create the classroom scenes that could arouse and sustain their interest thereby leading to better performances?

This study, therefore, investigated the relative effect of demonstration and videotape mediated instructional strategies on Nigerian secondary school students' achievement and retention in Yoruba language.

**Hypotheses:** Three hypotheses were generated and tested in the study. The hypotheses are stated:

- There is no significant difference between the achievement mean scores of the experimental and the control groups
- There is no significant difference between the pretest mean scores and the achievement mean scores in each of the experimental and the control groups.
- There is no significant difference in the retention mean scores of the experimental and the control groups

### MATERIALS AND METHODS

**Research design:** The study adopted the quasi-experimental pretest, posttest control group design.

Two experimental groups responded to the pretest, posttest and retention test after exposure to difference treatment conditions while the control group responded to the pretest, posttest and retention test without any treatment.

The design of the study is as follows:

Experimental group 1	-	O <sub>1</sub>	x <sub>1</sub>	O <sub>2</sub>	rt
Experimental group 11	-	O <sub>3</sub>	x <sub>2</sub>	O <sub>4</sub>	rt
Experimental group 111	-	O <sub>5</sub>	-	O <sub>6</sub>	rt

Where:

O<sub>1</sub> O<sub>3</sub> O<sub>5</sub> = pretest

O<sub>2</sub> O<sub>4</sub> O<sub>6</sub> = posttest

rt = Retention test

x<sub>1</sub> = Treatment (demonstration with videotape-mediated instructional strategy).

X<sub>2</sub> = Treatment (demonstration methods)

- = No treatment

The independent variables consisted of two methods of teaching while the dependent variables are the posttest and the retention test.

**Sample and sampling technique:** The population for the study consisted of all junior secondary school class two students in the three schools selected for the study.

The sample consisted of 135 junior secondary class two students selected from 3 schools into the three groups used for the study, in which case, each group had 45 students. The stratified random sampling technique was adopted to select three schools used for the study. The stratification was based on the geographical location of the schools. This was to ensure that each of them was located far away from the others so as to avoid interaction

among the subjects. The researchers also used cluster sampling technique to select one class per school. In all the schools considered intact classes were used for the experimental and control groups.

**Research instrument:** The instrument used for the study was the Yoruba Language Achievement Test (YLAT) designed by the researchers in collaboration with test experts and Yoruba language examiners. The instrument contains two sections. Section A is the biodata which indicates Name, School, Class, Age and sex of the student. Section B contains multiple choice objective questions of four options each. The YLAT was designed to measure student's achievement in Yoruba language. The test items covered all the topics treated. The contents were selected from the scheme of work designed for junior secondary schools in Nigeria.

The face and content validities of the instrument were ensured by experts in test and measurement, curriculum studies and Yoruba language teachers. Also, to obtain the reliability of the instrument a test-retest method was adopted in a school other than those used for the study, using two weeks interval and using Pearson product moment correlation analysis. A reliability coefficient of 0.84 was obtained and this was considered adequate for the study.

**Instructional package:** The instructional package used for the study include 18 lesson plans developed on the nine sub-topics for each group and the video package which contained the live activities of marriage, types of marriage, stages of marriage and also noun and various types of nouns of Yoruba language. These topics were selected from the scheme of work approved for and used by junior secondary schools in Nigeria.

**Research procedure:** The research procedure took three forms, the pre-treatment stage, the treatment stage and the post-treatment stage when the posttest and the retention test were administered. The pretest was administered with the help of teachers in the schools used before the treatment. The treatment took three weeks after which the posttest was administered. The retention test was administered two weeks after the posttest. The control group also had its own tests at the same time with the other groups.

**Data analysis:** The data collected were computer-analysed using the appropriate descriptive and inferential statistics of the Statistical Package for the Social Sciences (SPSS) programme. In testing for possible post-experimental difference in achievement and retention

among the subjects, the t-test, Analysis of Variance (ANOVA) and Analysis of Covariance (ANCOVA) were used and the hypotheses were tested at 0.05 level of significance. Post-hoc analyses were also carried out where necessary, using Multiple Classification Analysis (MCA) and Scheffe's test.

**RESULTS**

**Hypothesis 1:** There is no significant difference between the achievement mean scores of the experimental and the control groups.

To test this hypothesis, the Analysis of Covariance (ANCOVA) was computed. The results are presented in Table 1.

As revealed in Table 1, the groups differed significantly in their achievement as the calculated value is greater than the table value at 0.05 level of significance.

In order to provide some indications of the performance of each group, a Multiple Classification Analysis (MCA) was computed. The results are presented in Table 2.

The MCA (Table 2) shows that the demonstration with videotape mediated instructional strategy group had the highest adjusted posttest mean score of 66.77 followed by the demonstration group (51.02). The control group had the lowest (32.36).

On the basis of these findings, hypothesis 1 was thereby rejected. There was a significant difference in the achievement mean scores of the experimental and the control groups.

**Hypothesis 2:** There is no significant difference between the pretest mean scores and the achievement mean scores in each of the experimental and the control groups.

Table 1: Summary of ANCOVA on the achievement mean scores of subjects

Source	SS	df	Ms	F <sub>cal</sub>	F-table
Covariate pretest	213.234	1	213.234	3.526	3.840
Group	26774.200	2	13387.100	221.346	3.000
Error	7922.943	131	60.480		
Corrected total	35248.637	134			
Total	373449.000	135			

p<0.05

Table 2: Multiple classification analysis of achievement mean scores of subjects in the different groups

Grand mean = 50.05					
Variable+category	N	Unadjusted deviation	Eta	Adjusted for independent+ covariates	Beta
Demonstration	45	0.75		0.97	
Demonstration with video tape	45	16.97	2.77	16.72	0.125
Control gp	45	-17.72		-17.69	
Multiple R					0.125
Multiple R squared					0.016

**Table 3: Summary of t-test on the pretest and the achievement mean scores of subjects in each group**

Group	Variable	N	$\bar{X}$	SD	df	t-cal	t-table
Demonstration with videotape mediated	Pretest	45	33.16	7.33	44	17.78	2.00
	Achievement	45	67.02	10.47			
	Pretest	45	31.47	7.59			
Demonstration	Achievement	45	50.80	5.85	44	13.54	2.00
	Pretest	45	32.09	7.62			
	Achievement	45	32.38	6.46			
Control	Achievement	45	32.38	6.46	44	0.20	2.00

**Table 4: Summary of ANOVA on the retention mean scores of the subjects in the different groups**

Source	SS	Df	Ms	F-cal	f-tab
Between GPS	19974.933	2	9987.467	101.737	3.000
Within GPS	12958.400	132	98.170		
Total	32933.333	134			

**Table 5: Summary of Scheffe's post hoc analysis of the three groups**

	1	2	3
GRP I		*	*
GRP II			*
GRP III			

To test this hypothesis, the t-test was computed. The results are presented in Table 3.

Table 3 has revealed significant differences for each of the experimental groups showing the calculated t values as 17.78 and 13.54 for the demonstration with videotape mediated instructional strategy and the demonstration groups respectively. Only the control group recorded no significant difference. On the basis of these findings, hypothesis 2 was thereby rejected but with modification. There was a significant difference between the pretest mean scores and the achievement mean scores in each of the experimental groups but there was no significant difference between the pretest mean scores and the achievement mean scores of the control group.

**Hypothesis 3:** There is no significant difference in the retention mean scores of the experimental and the control groups.

To test this hypothesis, the one-way Analysis of Variance (ANOVA) was computed. The results are presented in Table 4.

Table 4 shows  $p < 0.05$  that f-calculated is 101.737 which is greater than the f table value (3.000). This indicates a significant difference in the retention mean scores between the different groups. In order to provide some indications of the performance of each group, the Scheffe's test was computed and the results are presented in Table 5.

Table 5 shows a pair wise difference of the retention mean scores between Group 1 (Demonstration with videotape mediated instructional strategy) and Group 2 (Demonstration); between Group 1 and Group 3 (Control) and between Group 2 and Group 3. Therefore, the null hypothesis was rejected. There was a significant difference in the retention mean scores of the experimental and the control groups.

## DISCUSSION

The findings of this study have revealed significant differences between the achievement mean scores of the experimental and control groups. This has shown that the students exposed to demonstration with videotape mediated instructional strategy performed better than those exposed only to demonstration. Since demonstration was common to both groups, one could deduce that the use of the videotape in Experimental Group 1 made the difference in performance. This may be due to the strength of the interaction between exposure to video and demonstration at the same time. This finding is at variance with the findings of earlier studies which suggested that the videotape mediated instruction may not be instrumental to better understanding of certain concepts (Hodge-Hardin, 1995; Rouan, 1995; McDonald, 1996; Adeosun, 2002). These studies were conducted on subjects other than Yoruba Language. It may be said, therefore, that their findings may not apply to the learning of Yoruba language as it appears that the videotape-mediated instructional strategy especially when combined with demonstration will ensure better understanding of Yoruba language.

This is not to say, however, that the demonstration method used alone is not effective. The findings on Hypothesis 2 show that students achieved significantly when exposed to the demonstration method. This is, however, not strange as scholars have attested to the effectiveness of the demonstration method in teaching (Seweje and Jegede, 2002; Adewuya, 2003).

It has also been found in this study that the students differed significantly in their retention mean scores. The outcome of the retention test followed the same achievement pattern on the posttest. Dopemu (1986) and Balogun (1995) had attested to the fact that video materials are an integral part of teaching and learning and that they help to bring about permanent and meaningful experience. Moreso, part of the content taught have to do with marriage which is an interesting phenomenon which is celebrated in Nigeria, there is the tendency to retain more when exposed to demonstration and the combination of this with the videotape. They bring the experience closer to the students and make the reality clearer to them. It, therefore, shows that the two methods tested are very effective in the teaching and learning of Yoruba Language in Nigerian Secondary Schools.

## CONCLUSION

This study investigated the relative effects of demonstration and demonstration with videotape-mediated instructional strategies on Nigerian Secondary School Students' achievement and retention in Yoruba Language. The findings of the study show that the two strategies investigated were effective in achievement and retention in Yoruba language. This, notwithstanding, the combination of demonstration with videotape-mediated instruction was more effective among the two strategies. This suggests that, as far as the teaching and learning of Yoruba language is concerned; the combination of demonstration with videotape-mediated instruction will always be dependent upon for good understanding of concepts taught.

## RECOMMENDATIONS

Based on the findings of this study, the following recommendations are hereby made:

- Yoruba Language teachers in Nigeria should use the strategies investigated in this study to teach often in the Secondary schools. This is because they have been found to be effective in learning the subject.
- Yoruba Language teachers should also focus more on the use of the combination of demonstration with videotape-mediated instruction in teaching the subject since this has also been found to be more effective than demonstration method employed alone.

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