

# **Effects of Drill and Practice and Conventional Methods on Hausa Language Students Performance and Retention in Daura Educational Zone, Katsina State, Nigeria**

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## **Abstract**

The study investigates the Effects of Drill and Practice and conventional method on Hausa language students' academic performance and retention in Daura Educational Zone, Katsina State, Nigeria. The study raised three research objectives. These include determine the difference in the academic performance of Senior Secondary school students taught Hausa language using drill and practice method and those taught using conventional method; determine the difference in the retention of Senior Secondary school students taught Hausa language using drill and practice method and those taught using conventional method among other. Three research questions were raised and three hypotheses were formulated in line with research objectives. Relevant literatures were reviewed. The study used quasi-experimental research design of pre-test, posttest, non-equivalent, non-randomize control group design. The population of the study is 3,912 SSII Hausa language students in Daura Educational Zone, Katsina State. 101 SS II Hausa language students participated in the study using purposive sampling technique. The study used Hausa Language Achievement Test for data collection. Hausa language Achievement Test is made up of 40 multiple-choice questions. The instrument was adapted from West Africa Examination Council (WAEC) past questions. Experts validated the instrument. The reliability of the instruments was established using test-retest method and a reliability coefficient of 0.67 was obtained. Experimental group was taught using Drill and practice method while control group was taught using conventional method of teaching. The study research questions were answered using mean and standard deviation while the formulated hypotheses were tested using independent sample t-test. The findings of this study shows that there is significant difference in the academic performance of senior secondary school students taught Hausa Language using drill and practice and those taught using conventional method in favour of drill and practice method. Furthermore, the study revealed that there was significant difference between the retention score of students taught Hausa language using Drill and Practice and those taught using conventional method in favour of drill and practice group. Also, there is significant difference in the academic performance of male and female students taught Hausa language taught using drill and practice method. Based on the findings of this study, the study concluded that drill and practice method can improve students' academic performance and retention in Hausa language but is more favorable to male students. Thus, based on the findings of this study, it was recommended that Drill and practice method should be used by the Hausa language teachers for stimulating and boosting Hausa language students' academic performance and retention at senior secondary schools level.

**Keywords:** Drill and Practice (CAI), Conventional Method, Hausa Language Students, Performance, Retention.

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## **Introduction**

In spite of these laudable objectives for teaching Hausa language, there are problems militating against achieving the identified objectives which include: Over population in Hausa language classrooms; non-standard writers; inadequate teaching facilities; inadequate and unqualified Hausa teachers; poor or lack of motivation; poor teaching methods; and lack of motivation.

To overcome the above problems, in teaching and learning of Hausa language, thus the teaching and learning process have to meet the needs of the contemporary world technology. In present time, information and communication technology (ICT) can be applied in Hausa language to enhance teaching and learning. ICT is any device and an application used in retrieving, processing, manipulating, storing, transmitting and presenting information which not only engage student in instructional activities but also assists them in finding lasting solution to the complex problems and issues (Ali, Haolander & Muhammad, 2013). ICTs include the internet, telephones, audiovisuals and audio among which computer is the most popular. There are an increase number of educators that make use of ICT in enhancing instruction, in many areas of studies (Kareem 2015).

Josiah (2013) suggested that in any teaching and learning situation, methodology adopted by teachers determine the factor promote or hinder effective learning. Adebisi, Tas and Solomon (2014) also stated that the traditional method of teaching dominates most of the Nigerian schools where students only listen to lectures without active participation in learning. This type of teaching approach is didactic and results in audience misunderstanding, loss of information and poor retention of the contents. These pedagogical approaches expose students only to understand subject at a knowledge level and usually memorize concepts without fully understanding of the real meaning (Cepni, Tas & Kose, 2006).

Thus, there is much need to embrace the use of modern technology in teaching and learning realms to enhance students' performance. Such modern technology involves Computer Assisted instruction (CAI) modes such as Drill and Practice. Computer is one of the popular devices which ease teaching and learning activities (Kareem, 2015).

In view of the above, the study therefore investigates the “effects of drill and practice and conventional methods on Hausa language students' performance and retention in Daura Educational Zone, Katsina State, Nigeria.

### **Statement of the problem**

Teaching and learning outcomes of students depends on the kind of methods employed by the teachers during their lessons delivery. Traditional teaching methods such as chalk-talk method, lecture method, demonstration method amongst other methods adopted by the Hausa language teachers in senior secondary schools are often refers to as conventional teaching method. And, this method is more emphasized on teacher centered rather than students centered. This teaching strategy often discouraged creativity and disengaged students from thinking and reasoning beyond what is presented to them by their teachers. Moreover, poor application of effective teaching methodologies by the teachers is the major issue that leading to the poor performance and retention in senior secondary schools. Conventional method of teaching does not favour good students performances and retention. Hence, this traditional and or conventional teaching methods used by the teachers may be responsible for the persistent poor performance and retention of Hausa language students in senior secondary schools. Therefore, to overcome these problems, there is

much need to determine the effects of Drill and Practice as an alternative to teaching and learning of Hausa language in senior secondary schools for the improvement of the senior secondary schools Hausa language students' performance and retention in Daura Educational zone Katsina State, Nigeria.

The report of the general performance of students in final examinations results in Hausa language over the years was not encouraging. In Nigeria most teachers taught with traditional (chalk-talk) method otherwise known as lecture method of teaching which renders students passive listeners and makes teaching ineffective and as such affects students' academic performance negatively, especially in Hausa language.

Thus, the conventional teaching methods should be avoided by teachers and replaced with innovative teaching strategies such as drill and practice methods among others. Thus, this study investigates the "effects of drill and practice and conventional methods on Hausa language students' performance and retention in Daura Educational Zone, Katsina State, Nigeria.

### **Objectives of the Study**

Specifically, the objectives of the Study are to:

1. Determine the difference between the mean academic performance scores of students taught Hausa language using Drill and Practice method and those taught with conventional method in Daura Educational Zone, Katsina State.
2. Ascertain the difference between the mean retention scores of students taught Hausa language using Drill and Practice method and those taught with conventional method in Daura Educational Zone, Katsina State.
3. Establish the difference in the mean academic performance scores of male and female students taught Hausa language using Drill and Practice method in Daura Educational Zone, Katsina State.

### **Research Questions**

The study sought answers to the following research questions:

- i What is the difference between the mean academic performance scores of students taught Hausa language using Drill and Practice method and those taught with conventional method in Daura Educational Zone, Katsina State.?
- ii What is the difference between the mean retention scores of students taught Hausa language using Drill and Practice method and those taught with conventional method in Daura Educational Zone, Katsina State?
- iii What is the difference in the mean academic performance scores of male and female students taught Hausa language using Drill and Practice method in Daura Educational Zone, Katsina State?

### **Methodology**

The study adopted Quasi-experimental design. Specifically, the study use non-equivalent, non-randomized, pretest, posttest control group design. The population comprised of twenty (20) senior secondary schools in Daura Educational Zone, Katsina State, Nigeria. Purposive sampling

technique was used to draw two schools as samples from the target population of the study. Firstly, simple random sampling technique was used to select two intact classes of SS II Hausa language students from each school and assigned those groups as control and experimental groups. The population and sample size of the study is 3912 and 101 as respectively shown on the Table 1 and Table 2.

**Table 1: Population of the Study (Government Senior Secondary Schools)**

SN	Name of Schools	Number of Students
1.	G.S.S.S. Dan Nakola	70
2.	G.S.S.S. Suduje	73
3.	G.P.S.S. Daura	272
4.	G.G.S.S. Daura	739
5.	G.S.S.S. Daura	338
6.	G.S.S.S. Kalgo	485
7.	G.S.S.S. Gurjiya	168
8.	FSP N/P/SS Daura	165
9.	G.S.S.S. Jirdede	59
10.	G.S.S.S. Koza	290
11.	G.S.S.S. Kongolam	141
12.	G.S.S.S. Mai'adua	185
13.	G.P.S.S. Gwajo-Gwajo	68
14.	G.S.S.S. 'Yar Yandi	70
15.	G.S.S.S. Bum-Bum	80
16.	G.S.S.S. Dutsi	218
17.	G.S.S.S. Shargalle	113
18.	G.S.S.S. Kayawa	108
19.	G.S.S.S. Dan Aunai	42
20.	G.G.S.S. Shargalle	228
<b>Total</b>		<b>3,912</b>

Source: Office of the Director, Daura Educational Zone of Katsina State

**Table 2 Sample Size of the Study**

SN	Name of Schools	Size	School Type	Groups
1.	School A	54	Public	Control
2.	School B	47	Public	Experimental
<b>Total</b>		<b>101</b>		

The instrument used for data collection in this study was Hausa Language Achievement Test (HAULAT) which was administered as pre-test, post-test and retention test. The test contains 40 items of multiple choice questions. Each question contains five options A-E. It was adopted from National Examination Council (NECO) and West African Examination Council (WAEC) past question papers (1999-2018).

Two marks were awarded for the correct answer while zero was allocated to each wrong answer. The questions covered four topics in Hausa language as follows: Furuci, Ginin kalma, Fassara and Auna Fahimta.

In order to ensure the validity of the HAULAT instrument, it was validated by three lecturers in Hausa Language Department, Ahmadu Bello University Zaria and three Senior Secondary school Hausa language teachers. They examined the lesson note, the package and HAULAT in terms of the contents. All corrections and observations were and affected to produce the final copy of the instrument.

In order to ascertain the reliability of HAULAT, pilot test was carried out with the used of 11 students from Government public secondary school (G.P.S.S. Zango). The main purpose of pilot study according to Kerlinger, Fred and Howard (ND) is to confirm the suitability of the instrument for its adequacy and for the effectiveness of the instrument.

To determine the reliability coefficient (r) level of the instrument (HAULAT) used for the study; data collected was subjected to statistical analyzed. Hence, the reliability co-efficient was determined using Pearson Product Moment Correlation Coefficients (PPMCC  $\frac{1}{2}$ ) which yielded the reliability coefficient value of 0.669. Hence, this result show that the instrument is reliable because the closer the result to one (1) the more reliable the instrument becomes.

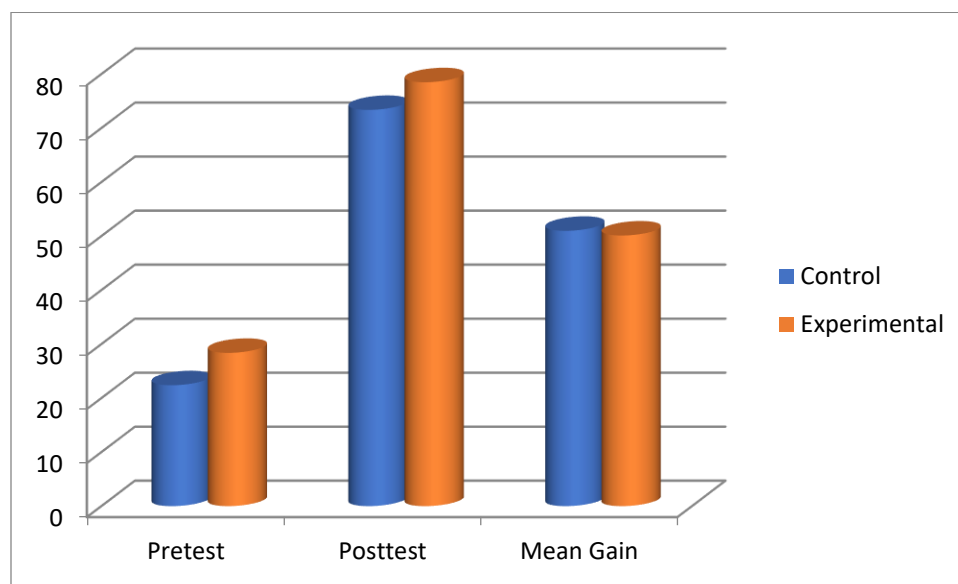
## Results

**Research Question One:** What is the difference between the mean academic performance scores of students taught Hausa language using Drill and Practice method and those taught with conventional method in Daura Educational Zone, Katsina State? In answering research question one, the mean academic performance scores of experimental and control groups were analyzed using mean and standard deviation as shown in table 4.1.

**Table 4.1: The Mean and Standard Deviation of Pretest and posttest Achievement Scores of Experimental and Control Groups**

Group	N	Pretest		Posttest		Mean Gain
		Mean	SD	Mean	SD	
Control	54	22.39	4.081	73.37	4.748	50.98
Experimental	47	28.38	2.960	78.49	4.986	50.11

Table 4.1 shows the mean and standard deviation of pretest and posttest scores of control and experimental groups. From the result, it can be seen that the mean score and the standard deviation of the pretest and the posttest score of the control group are  $X= 22.39$ ,  $SD= 4.081$  and  $X= 73.37$ ,  $SD= 4.748$  respectively. The mean gain is 50.98 in favour of control group posttest achievement score. Similarly, the mean and standard deviation of pretest and posttest scores of experimental group are  $X= 28.38$ ,  $SD= 2.960$  and  $X= 78.49$ ,  $SD= 4.986$  respectively. The mean gain is 50.11 in favour of posttest experimental group achievement score. Also the result revealed the mean difference of 0.87. The graphical representation of pretest, posttest of experimental and control groups is shown in Figure 2.



**Figure 2: Graphical Representation of pretest, posttest of experimental and control Groups**

**Research Question Two:** What is the difference between the mean retention scores of students taught Hausa language using Drill and Practice method and those taught with conventional method in Daura Educational Zone, Katsina State?

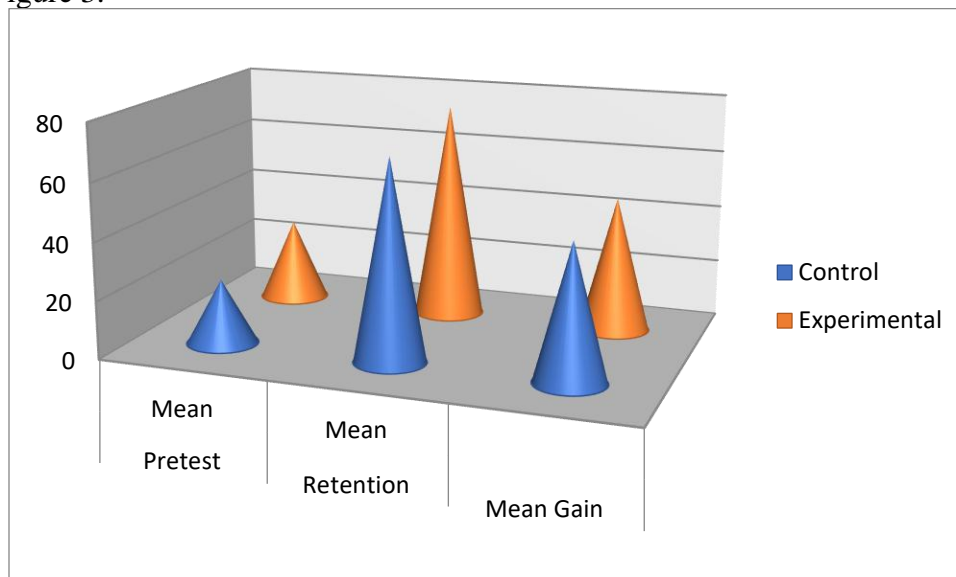
In answering research question two, mean retention scores of students in control and experimental groups were analyzed using mean and standard deviation as shown in table 4.1.

**Table 4.2: The Mean and Standard Deviation of Pretest and Retention Scores of Control and Experimental Groups**

	N	Pretest		Retention		Mean Gain
		Mean	SD	Mean	SD	
Control	54	22.39	4.081	69.56	5.354	47.17
Experimental	47	28.38	2.960	75.40	4.586	47.02

Table 4.2 shows the mean and standard deviation of pretest and retention academic performance scores of control and experimental groups. From the result, it can be seen that the mean score and the standard deviation of pretest and retention scores of control group are  $X = 22.39$ ,  $SD = 5.354$  and  $X = 69.56$ ,  $SD = 5.354$  respectively. The mean gain is 47.17 in favour of control group achievement score. Similarly, the mean and standard deviation of pretest and retention scores of experimental group are  $X = 28.38$ ,  $SD = 2.960$  and  $X = 75.40$ ,  $SD = 4.586$  respectively. The mean gain is 47.02 in favour of the experimental group achievement score. Also the result reveals the mean difference of 0.15 pretest and retention mean gain of control and experimental groups.

To further attest to this, the mean gain scores between pretest and retention of the two groups are shown in Figure 3.



**Figure 3: Graphical Representation of pretest and retention of experimental and control Groups**

**Research Question Three:** What is the difference in the mean academic performance scores of male and female students taught Hausa language using Drill and Practice method in Daura Educational Zone, Katsina State?

In answering research question three, the mean academic performance scores of male and female students in experimental groups were analyzed using mean and standard deviation as shown in Table 4.3

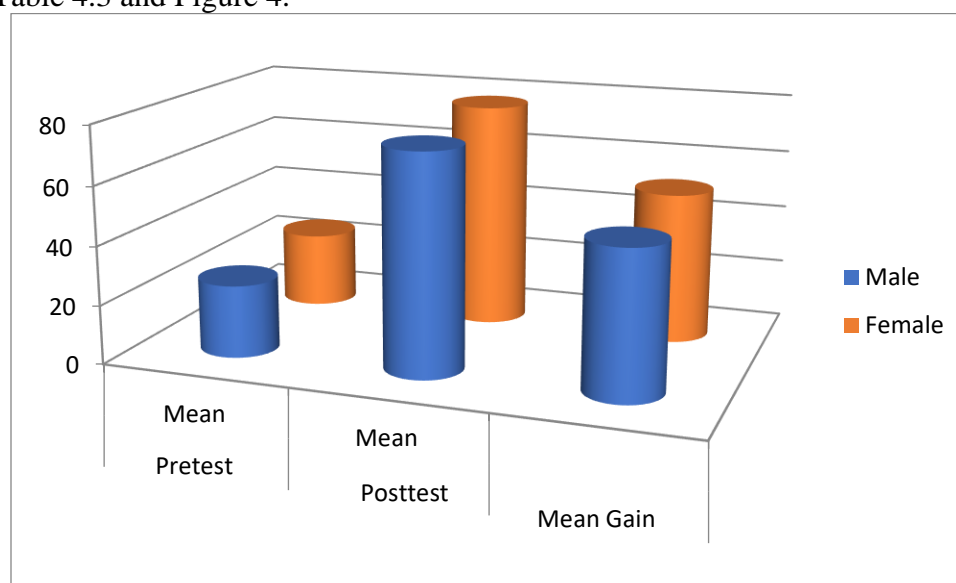
**Table 4.3: The Mean and Standard Deviation of Pretest and Posttest Scores of male and Female Students in Experimental Groups**

Gender	N	Pretest		Posttest		Mean Gain
		Mean	SD	Mean	SD	
Male	20	25.72	3.837	77.13	4.281	51.41
Female	27	24.70	5.294	74.56	6.123	49.86

Table 4.3 shows the mean and standard deviation of pretest and posttest academic performance scores of male and female students in experimental groups. From the result, it can be seen that the pretest mean score of male students was 25.72 with standard deviation of 3.837 while pretest mean score of female students was 24.70 with standard deviation of 5.294. The posttest mean score of male students was 77.13 with standard deviation of 4.281 while the posttest mean score of female students was 74.56 with standard deviation of 6.123. The mean gain of male students was 51.41 while that of female students was 49.86. This shows that the male students' mean score is better than female students mean score.

and the standard deviation of pretest and posttest scores are  $x = 24.70$ ,  $SD = 5.294$  and  $X = 74.56$ ,  $SD = 6.123$  respectively. The mean gain is 49.86 in favour of control group achievement score. Similarly, the mean and standard deviation of pretest and posttest academic performance scores of experimental group are  $X = 25.72$ ,  $SD = 3.837$  and  $X = 77.13$ ,  $SD = 4.281$  respectively. The mean gain is 51.41 in favour of the experimental group achievement score. Also the result reveals the mean difference of 1.55 pretest and posttest mean gain of control and experimental groups.

To further attest to this, the mean gain scores between pretest and posttest of the two groups are shown in Table 4.3 and Figure 4.



**Figure 4: Graphical Representation of Pretest and Posttest of Experimental and Control Groups**

### Discussion of the Findings

Hausa Language is one of the core subjects in Nigerian secondary schools. The aim of teaching Hausa language at secondary school level of education is to make student fluent in mother tongue. However, the teaching of the subject in Nigerian secondary schools have not achieve its primary aims due teacher centered teaching and learning methods commonly used among Hausa language teachers. However, the advancement in technology has paved way for varieties of technology-based teaching methods that have previously tested in others subject areas and proved effective. Among which, drill and practice has been loudly praised as capable of improving language learning because student are given chance to master a language concepts repeatedly until they master it. This study, therefore, investigated the effect of teaching Hausa language using drill and practice method.

The research question one raised by the study is to establish whether there will be difference in the academic performance score of students taught Hausa Language using drill and practice method and those taught using conventional method. The corresponding hypothesis also sought to whether

the observed difference will be statistically significant. The result shows that there was difference in the academic performance in the academic performance score of SSII students taught Hausa Language using drill and practice method and those taught using conventional method in favour of drill and practice method. The corresponding hypothesis revealed that the observed difference between the two groups was statistically significant. This implies that drill and practice method when used in teaching Hausa language will improve students' academic performance better than conventional method. This finding is in line with the findings of Galadima, (2010), Adebesei, Tas and Solomon (2014) and Suleman, (2017) who reported that drill and practice improved students' academic performance better than conventional methods. However, the finding of the study differed with the findings of Yusuf and Afolabi, (2010), Achor, Otor and Umoru, (2013), and Kareem, (2015) who found that the difference in the academic performance of students taught using drill and practice and those taught using conventional method. This contradiction, however, could be because of the difference in the topics taught.

The research question two raised by the study is to establish whether there will be difference in the retention score of students taught Hausa Language using drill and practice method and those taught using conventional method. The corresponding hypothesis also sought to know whether the observed difference will be statistically significant. The result shows that there was difference in the retention score of SSII students taught Hausa Language using drill and practice method and those taught using conventional method in favour of drill and practice method. The corresponding hypothesis revealed that the observed difference between the two groups was statistically significant. This implies that students taught using drill and practice method retained learnt contents of Hausa Language more than those taught using conventional method This finding is in line with the findings of Achor, Ator and Umoru (2013) and Bichi (2010) who reported that drill and practice improved students' retention ability than conventional methods. However, the finding of the study differed with the findings of Kareem, (2015) who found no significant in the retention ability of students taught using drill and practice and those taught using conventional method. This contradiction, however, could be because of the difference in the topics taught.

The research question three and the corresponding hypothesis were raised to know whether drill and practice method is bias of gender. The finding indicated that there is significant difference in the male and female students academic performance score when taught using drill and practice method in favour of male students. The observed difference is statistically significant. This connote that male students benefited more than female students. The finding is in line with findings of Suleman, (2017) and Achor, Otor and Umoru, (2013).

### **Conclusion**

The study investigated the effects of Drill and Practice on senior Secondary school Hausa language Students performance and retention. From the findings of this study, it was concluded that the use of Drill and Practice enhanced students' performance and retention of taught concepts of Hausa language. Furthermore, the study concluded that drill and practice is more benefit to the male Hausa language students than female Hausa language students.

### **Recommendations**

The following recommendations were made base on the findings of the study:

In respect to the findings of this research, the following recommendations were made:

1. Hausa language teachers should be encouraged to integrate computer based drill and practice into the teaching of Hausa language to improve students academic performances
2. Hausa language teachers also be encouraged to integrate computer based drill and practice into the teaching of Hausa language to improve students' retention Hausa language taught concepts.
3. Governmental and non-governmental agencies such as NITDA, NCC among others should provide the needed facilities for the effective integration of computer based Drill and Practice method in Hausa language teaching and learning activities.

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