

# EFFECTS OF VERBAL REINFORCEMENT STRATEGY ON ACADEMIC ACHIEVEMENT OF POOR ACHIEVING PUPILS IN THE ENGLISH LANGUAGE IN THE PRIMARY SCHOOLS: A CASE STUDY OF OLAMABORO LOCAL GOVERNMENT AREA, KOGI STATE

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## **Abstract**

This study sought to examine the effects of verbal reinforcement strategy on academic achievement of poor achievers in English language in primary schools. The study also examined the interaction effect between treatment and gender on achievement in English language. The design of the study is the non-equivalent control/group quasi experiment involving one treatment group and one control group. The sample of the study consists of 120 primary two pupils identified as low achievers. Sixty male and sixty female pupils were used for the study. Two researcher-constructed in instalments were developed; tested validated and used for the study. The instalment is the English Language Achievement Test (ELAT). Two of lesson plans with the verbal reinforcement strategy were used for teaching subjects in the treatment group while the lesson plans with the conventional methods were used for the control group. Three research questions and two hypotheses were analyzed and tested. The data collected were analyzed using mean, standard deviation and analysis of covariance (ANCOVA). The data analysis shows that the use of verbal reinforcement strategy has a facilitative effect on the achievement of low achieving primary school pupils in the English language. Six recommendations were made based on the findings of the study.

## **Introduction**

One of the seven goals articulated for primary education is to inculcate permanent literacy and numeracy and the ability to communicate effectively. In order to achieve this goal, the policy directs that Mathematics and the English Language should be part of the core curriculum of primary school education. The role of primary education is therefore, to lay the foundation of the school projects. If a good foundation is laid on the subjects at this level, there are likely to be no problems at subsequent levels. However, poor achievement has been observed in school subjects especially Mathematics and English the language among primary school pupils (AH, 1990; Habor-Peters, 1992; and Agwagah, 1993).

The role of the English language in a society has been variously recognized and acknowledged. It is the key to effective communication, and very useful to man in his daily living (Crukkshrk and Johnson, 1984). It is therefore important to lay a solid foundation in English language at the primary school level. It has been observed that in spite of the importance of the English language and mathematics, as science and technology based courses and as the key to effective communication, pupils still perform poorly in them. Harbor-Peters (1988) pointed out that failure rates in both school and public examination have been distressingly high and students' performance at every level of education has continued to be low. This downward trend in the performance of pupils is blamed on teacher's inappropriate teaching method.

According to Ford and Thomas (1997, Retrieved 2005) there is little consensus on how best to define underachievement, particularly among gifted students. A related issue concerns one's definition of underachievement. In general, underachievement is defined as a discrepancy between ability and performance. Yet, few studies have used the same definition of underachievement. After reviewing more than 100 publications on underachievement, Ford (1996) noted that this can be measured using any number of criteria and instruments. School A may use intelligence and an achievement test, school B may use an achievement test and grade point average, and school C may use an aptitude test and GPA. In these examples, the schools have adopted a psychometric definition of underachievement, which is problematic because minority students tend not to score well on standardized tests.

Teachers must consider several questions regarding the nature and extent of students' under achievement:

- Is underachievement chronic, situational, or temporary?
- Is underachievement subject specific or general?
- What factors are contributing to underachievement (e.g. poor intrinsic motivation, poor academic self-esteem, negative peer pressures, lack of family involvement, poor student-teacher relationships, low teacher expectations)?

The lack of consensus on how best to define and measure underachievement-qualitative or qualitative, amount of discrepancy, nature and extent-all make it difficult to estimate the number of gifted students who are underachieving. With more (1980) estimated that at least 20% of gifted students

underachieve, while the U.S. Commission on Excellence in Education (1983) estimated 50%. Ford (1995) found that 46% of the gifted Black students surveyed were underachieving.

One of the biggest problems facing educators is that of student underachievement. Teachers and parents feel confusion, frustration, and disappointment when students fail to work to their potential. Gifted underachieving minority students perform poorly in school for many of the reasons that any student might. Yet, as described earlier, minority students may face additional barriers.

In short, underachievement is not only a problem, -but a symptom of problems. To address this, educators must explore factors contributing to underachievement; these factors can be categorized as sociopsychological, family-related, peer-related, and school-related. One or all of these factors can hinder student achievement. Teachers, counselors, and families must join in partnerships to best identify and serve gifted underachieving minority students.

**Table 1: Primary School Examination Results in the English in Olamaboro Local Government 2000/2002**

Year of Exam	Total Enrolled	Pass	Fail
2000	3989	898	3,091
2001	3679	985	2694
2002	4489	888	3601

Source: Primary School Continuous Assessment for Pupils in Primary Two in Ankpa Emonoja in Olamaboro Local Government.

From the literature however, the use of verbal reinforcement strategy in teaching has been used extensively in other countries and in other subject areas. It has been found to be an effective teaching strategy in Arab countries (Marecca Fashehi, 1980).

Positive social reinforcement (verbal reinforcement) has been said to represent a vast and often untapped area of academic behavioural control for the teachers and other change agents, (Wedell, 1980; and Becker and Madson, 1981). Verbal reinforcement is the use of words such as good, yes, excellent, very good, that is alright, you can do it, while teaching to strengthen the response. Praise is the type of reinforcement most commonly used by teachers. Until fairly recently, it was assumed that praise has reinforcing effects on students' academic performance. More recent research, however, indicates that praise may be helpful, neutral, or detrimental, depending on the kind of praise it is and the context in which it is delivered (Cotton, 2001).

In Kogi State there is an outcry regarding the falling academic achievement in the school, especially in the English language and mathematics, but nothing has been done to reverse the trend. One cannot assert that the falling level of academic achievement is attributable to teachers' non-use of verbal reinforcement strategy. Some studies, however, have suggested that it could be a contributory factor.

But in Olamaboro, there has been a dearth in literature on the use of this verbal reinforcement teaching strategy in the primary schools. Again the scanty literature available appear to show that there is no information on teaching, using verbal reinforcement strategy on a target population such as poor achieving pupils alone. The study therefore sought to examine the effort of verbal reinforcement strategy in academic achievement in poor achieving pupils in the English language in the primary schools.

### **Purpose of the Study**

The general purpose of the study is to determine the effects of teaching with verbal reinforcement strategy on academic achievement on English language achievement of poor achievers in primary schools in Kogi State.

Specifically, the study sought to find out:

1. The extent to which gender influences the academic achievement of pupils taught the English language with verbal reinforcement strategy and those taught with conventional method.
2. The interaction effect of treatment and gender on pupils' post test measurement in English language achievement.

### **Significance of the Study**

Evidence of poor achievement in English language is the motive behind the present study, which seeks to examine the effect of verbal reinforcement strategy on the English language achievement of poor achieving pupils in primary schools. A solid background in English language at the primary school level is very important. Findings of the study would be of immense benefit to primary school teachers, as they will be sensitized to a new strategy for teaching (the English language).

In summary, both the study and its results are of importance to the school and all people concerned with the education of children at primary and secondary school levels.

### **Scope of Study**

This study focuses on the examination of the effects of teaching the English language with verbal reinforcement strategy on academic achievement of pupils on English language of poor achieving primary two pupils in primary schools in Olamaboro Local Government Area of Kogi State. The independent variables in this study are teaching with verbal reinforcement strategy and gender, while the dependent variable is the pupils' academic achievement in the English language. The researcher focused only on determining the effectiveness of teaching with verbal reinforcement strategy on achievement in English Language. Therefore, selected contents from English Language modules approved for primary pupils were drawn and the pupils exposed to them in the course of the study. The content areas are:

- (a) English Language, Recognition of objects, Parts of the body and Reading skills.

### **Research Questions**

The study was guided by the following research question:

- 1 What is the difference in the post test mean achievement test of pupils taught English language using verbal reinforcement strategy and those who are taught with conventional methods?
- 2 To what extent does gender influence the post test mean achievement scores of pupils using verbal reinforcement strategy and those who are taught with conventional method?
- 3 What is the interaction effect of treatment and gender on pupil's post-test mean Achievement scores in English Language and those who are taught with conventional method?

### **Hypotheses**

The following null hypotheses were formulated to guide the study and were tested at 0.05 level of significance:

HO1: Teaching with verbal reinforcement strategy has no significant influence on the achievement of pupils taught with verbal reinforcement.

HO2: Gender is not a significant factor (P 0.05) -n the achievement of pupils taught English Language.

Ho3: There is no significant interaction between treatment and gender on pupils' post test mean achievement scores in English language.

### Design of the Study

This is a quasi-experimental study of the effect of teaching with verbal reinforcement strategy on academic achievement of poor achievers in English language and Mathematics. The design used is the non-equivalent group design with one experimental group receiving treatment and a control group receiving conventional method. **Table 2: A Quasi-Experimental Non-Equivalent Group Design**

Purposively Proposed Grouping	Experimental Groups	Pre-Test Control	Treatment	Post-Test
Female	30	01	XI	02
Male	30			
	Control group			
Male	30	01	-	02
Female	30			

Source: Field Survey, 2004

Key: The symbols are defined as follows:

- 1 = Pre-test
- XI = Treatment
- 2 = Post-test
- = Conventional method

The experimental group will use verbal reinforcement strategy while the control group will use the conventional method.

### Area of Study

Olamaboro Local Government Area of Kogi State is bounded by Ette. L.G.A of Enugu State, Ogbadiebo and Ohimini LGAs of Benue State, while it shares boundaries with Ankpa and Ofu LGAs in Kogi East of Kogi State. Its inhabitants are mainly farmers and petty traders and civil servants.

### Population of the Study

The population of this study consists of all the poor achieving primary two pupils in primary schools in Olamaboro Local Government Area in Kogi State.

### Sample and Sampling Technique

The sample consists of 120 primary two poor achievers in the English in Olamaboro Local Government Area. The researcher identified these poor achieving pupils in English language with the help of the teachers in the two schools sampled for the study because of the research confined those who are constantly poor achieving in these subject areas and they are more in these schools. The research made use of purposive sampling techniques to select two schools with at least two stream that are more poor achievers in English in those schools. Then in those school selected, the research uses the teacher to identify pupils who are constantly poor achieving. After identifying the poor achievement the researcher look at the cumulative record of continuous assessment of these pupils identified as poor achievers. Those confirmed by the researcher as the constantly poor achievers were one hundred and sixty pupils, numbering 70 and 90 respectively from each school. The reason for these is that the poor achievers are more in these two schools selected for the study.

The researcher made use of disproportionate stratified sampling techniques to select sixty subjects in each of the school identified which brought the total to 120 subjects. The stratification was done on the basis of gender.

**Table 3: The Distribution of Subjects Into the Experimental and Control Groups in the Two Schools**

Schools	Number Pupils	Female Treatment	Male Treatment	Female Control	Male Control	Total
1.	60	15	15	15	15	60
2.	60	15	15	15	15	60
	120	30	30	30	30	120

Source: Field Data, 2004

School one and two were used for the study.

### Instrument for the Study

Two research instruments were developed and used in collecting the data for the study. The instruments are the constructed achievement test constructed under the guidance of experts. Constructed achievement test including: English Language Achievement Test (ELAT). The ELAT was used for the pre-test. The same test used for the pre-test was disguised by reshuffling them. They were then used for the post-test. The items of the two achievement tests were based on the English Language contents. The contents were selected from the modules and syllabuses approved for primary two pupils by the Federal Ministry of Education (FME). The subjects were exposed to these contents during the course of study.

### Development of Instruments

#### 1. English Language Achievement Test (ELAT)

This test was constructed by the researcher with the help of some teachers of the English language primary school teachers and some other specialists in English. To develop this instrument a test blue print was designed. The test blue print is as shown on Table 4.

**Table 4: The Test Blueprint for Developing the English Language Achievement Test**

Contents	i Lower Order	Higher Order Question	Total
Parts of the body	2	-	2
Recognition objects	4	-	4
Reading skill	4	-	4
	10	-	10

Source: Field Survey, 2004

### Higher Order Question

Owing to the low performance only low order questions were posed to the subjects. Even at this they performed very poorly at the pretest level, while during the post test administration the treatment performed very well while the control group performed very poorly.

### Validation of the Instruments

The English Language Achievement Test and Mathematics Achievement Test were validated as follows:

#### English Language Achievement Test (ELAT)

The face validity and the content validity were established for the English Language Achievement Test. To ensure the face validity of the test blueprint for the English Language Achievement Test, it was presented to three experts in measurement and evaluation and three experts in English language education. The comments and suggestions of these experts were utilized in improving on the test blueprint.

The content validity of the Achievement Test was established by ensuring that the test items reflect the specifications of the test blue print. Thereafter, the test items generated were sent to the three specialists in education for comments and suggestions. The expected to observe whether the items were representative of the contents and the objectives. Initially 20-question-items were

generated. The 20 items were given to the experts together with the relevant content area and their objectives were also attached. Based on the experts their comments and suggestions, some items were dropped and others retained after a modification of their items or keys. The total questions finally used for the study were 10. Details of expert suggestions for improvement are shown as Appendix

**Trial Testing**

Trial testing was conducted using 30 poor achieving pupils in primary two outside the sampled school in Ankpa Local Government Area of Kogi State. One of the schools was used. An appropriate length of time for the test was determined from the trial testing. The time taken by the pupils was recorded in the school and the average found. This was used as atonement testing lime for the English language Achievement Test.

**Reliability**

The internal consistency reliability of the English Language Achievement Test was determined using the K-R 20 formula; this formula was considered appropriate as it is applied to items that are dichotomously scored such as multiple choice test and filling the gap. The calculated K-R 20 estimate is 85. This index is considered high enough. The internal consistency estimate gives a measure of the homogeneity of the items of the instrument. This kind of reliability is necessary for the achievement test as the score obtained from it would represent a composite attribute of the subjects.

**Method of Data Analysis**

Mean scores and standard deviations were used for analyzing the data to provide answers for the research question. Analysis of covariance (ANCOVA) (2x2) in which the pre-test served as covariate was used for analyzing data in respect of the hypotheses at 0.05 level of the significance.

**Presentation of Result**

This part presents the results of the data analysis according to research questions and hypotheses: **Research Question One**

What is the difference in the post test mean achievement scores of pupils taught English Language using verbal Reinforcement strategy?

**Table 5: The Mean Scores (X) and Standard Deviation (SD) of Pupils in Gender English Language**

Group	Male			Female			Total		
	N	X	SD	N	X	SD	N	X	SD
Explain	30	59.50	50.76	30	77.63	10.26	60	68.57	12.31
Control	30	32.23	4.81	30	32.13	5.58	60	32.18	5.12
Total	60	45.87	14.17	60	54.88	24.36	120	50.38	20.55

Source: Field Survey, 2004

Result in Table 5 reveals that the subject exposed to teaching with verbal Reinforcement strategy had a mean posttest Achievement score of 59.50 with standard deviation of 50.76 subject who received lesson with method of teaching using verbal Reinforcement strategy had a mean post test Achievement scores of 59.50 with standard deviation of 50.76. The control group had a mean post test Achievement score of 32.23 with standard deviation of 4.81. These results show that subjects in the treatment group performed better than those in the control group.

The hypothesis generated to address the Research Question is:

**H°j:** Teaching with verbal Reinforcement strategy has no significant effect (P 0.05) on pupils Achievement in English Language units as measured by their mean scores on (ELT).

**Table 6: Summary of 2 Way Analysis of Covariance (ANCOVA) on the Effects of Teaching with Verbal Reinforcement Strategy on Achievement of Pupils in English Language Treatment X Gender**

Source	Sum of Square	Degree of Freedom	Mean Square of	F 0.05 Level	Significant Covariates	Decision
Test	72.351	1	72.351	1.0506	3.9258	
Main effect	7478.934	2	3739.467	77728	-	-
Treatment	7474.800	1	7474.800	155.571	3.9258	S
Gender	2141.364	1	2141.364	44.5673.9258	-	S
2 way						
Interaction	2404.176	1	2404.176	50.0373.92		
Explained	44972.110	4 115	11243.02	233.997	-	-
Residual	5525.482		48.048			
Total	50497.592		119424.350	-	-	'

Not significant S = Significant at 0.05 level. Source: Field Data, 2004.

Results on Table 6 shows that the treatment as main factor is significant on pupils' Achievement in the English Language Units. This is because the F value of 155.571 in respect of treatment as main effect is shown to be significant. This means that teaching pupils with the verbal Reinforcement strategy significantly improves pupils' achievement in the English Language. As a consequence, the null hypothesis of no significant effect of treatment on the mean Achievement of pupils is rejected.

#### Research 2

To what extent does gender influence the post test mean Achievement scores of pupils taught English Language using verbal Reinforcement strategy?

Results in Table 5 indicate that while the male pupils had overall mean post test Achievement score of 45.87 with standard deviation of 14.17, the female pupils had an overall mean post test Achievement score of 50.38 with standard deviation of 20.55. The females perform better than the males in the units of English Language.

The hypothesis stated to help in answering the Research Questions is:

**H<sup>o</sup><sub>2</sub>**: Gender is not a significant factor on the Achievement of pupils in English Language.

The results in Table 6 indicate that gender was significant on the level of Achievement in the English Language. This because the F value of 44.567 in gender as main-factor is shown to be significant at 3.9258- This shows that at .05 level, the F value of 44.567 is significant. The null hypothesis of no significance effect is rejected. This means that the female pupils did significantly achieve higher than the male pupils in the English Language units.

#### Research Question 3

What is the interaction effect of treatment and gender on pupil's post-test mean Achievement scores in English Language and those who taught with conventional method?

Table 5 shows that the mean Achievement scores of males in the control group was 32.23 with standard deviation of 4.81 while in the Treatment group the males had the mean Achievement scores of 59.50 with standard deviation of 5.76 and the males in the control group had mean Achievement scores of 32.23 while the females in the control group had mean Achievement scores of 32.18 with standard deviation of 5.17. That means that the Achievement of females in the English Language was higher than that of the males. A corresponding hypothesis, which was generated to investigate further the answer to the above Research Question is: Gender has no significant influence on Achievement scores of pupils in English Language.

#### Summary of the Findings and Conclusion

The teaching of the English Language using verbal Reinforcement strategy enhances pupils academic Achievement in the English language content. This is to say that the null hypothesis of no significant difference in the academic Achievement *in the pupils taught the English Language using*

verbal Reinforcement strategy and those taught with conventional method is rejected. Female achieved significantly-higher than the males in the selected English Language contents under the study. That is to say that the null hypothesis of no significant difference due to gender differences is rejected. The interaction effect of treatment and gender greatly enhanced Achievement in the English Language contents. That is to say that the interaction effect is significant. And this implies that the null hypothesis of no significant interaction effect in the English level of pupils taught with verbal Reinforcement strategy and gender on pupils Achievement English is rejected.

### **Recommendations**

From the above findings, if the Vision and Missions of primary school education in the 21<sup>st</sup> Century has to be achieved the following recommendations must be taken seriously into action as a matter of urgency:

1. Considering that teaching with verbal reinforcement has been found effective, in enhancing academic achievement and in increasing level of achievement of primary school pupils in English Language, provision should be made in the primary school curriculum for the use of verbal reinforcement strategy in teaching the pupils.
2. Teachers are more acquainted with the use of lecture or conventional method of teaching, and unfamiliar with using other viable strategies such as reinforcement strategies in teaching. Bodies responsible for primary education, such as National Primary Education Commission (NPEC), State Primary Education Board (SPEB) and Local Government Education Authority (LGEA) should, therefore, organize series of seminars and workshops for primary school teachers on the use of verbal reinforcement strategy.
3. Since females were found to achieve higher than males in the English Language, efforts should be made to make sure the males are encouraged to put more efforts in the learning of the English Language.
4. Government should equip primary schools with facilities and also encourage them in the use of strategies that will bring about enhancement of the academic achievement of pupils. The facilities and materials that are needed for teaching in the schools should be relevant and suitable to both teachers and pupils.
5. Teachers should source those teaching strategies that are relevant to the targeted school subjects the one the researcher has identified.
6. Federal and State Ministries of Education and relevant professional associations interested in the problems of teaching in schools should organize seminars/workshops and conferences as aid to teachers. This is necessary because many of the practicing teachers may not be familiar with this strategy of teaching.

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