

## EFFECTS OF PHONICS AND FLUENCY METHODS ON READING ACHIEVEMENTS OF PUPILS IN THE PRIMARY SCHOOLS IN NIGER STATE

**\*Suleiman Lawal and Sule, Mohammed Ndako**

*\*Department of English  
Niger State College of Education, Minna*

---

### Abstract

The need to improve the teaching of reading at the foundation level has become imperative. For children to be able to read, write and communicate effectively, attention must focus on the teaching of reading at the primary school level. This is globally acclaimed. This work, therefore, compared the uses of phonics and fluency methods for teaching reading achievements of pupils at the foundation level in Niger State. The aim is to highlight which of the methods is better for the teaching of reading at the primary one level. To be able to do this, the study adopted quasi-experimental design with pre-test and post-test analysis. Three hundred and forty (340) pupils were sampled. The instrument used for data collection was designed by the researchers. Descriptive statistics of mean and standard deviation were used to answer the research questions and Analysis of Covariance (ANCOVA) was used to test the hypotheses at 0.05 alpha level of significance. The major findings of the study are that the primary school pupils taught letter sound identification, blending of sounds, isolation of initial phonemes and substitution of phonemes through the phonics method performed better than those taught with traditional method. Secondly, the performance of the pupils taught word recognition through the fluency method was higher than those taught with traditional method. The study recommended that phonics and fluency methods should be considered for the teaching of reading skill in the primary schools.

**Keywords:** Effects, Phonics, Fluency, Reading and Achievements

---

### Introduction

The past three decades have witnessed substantial efforts at the national, state and local levels on how to improve reading instruction and reading outcomes of children globally. In Nigeria, little efforts have been witnessed in this direction. The lack of serious concern by government and individuals has created a serious challenge to the pupils in the primary schools, particularly pupils in the public primary schools in Nigeria (Niger State inclusive). It is a known fact that pupils from the public primary schools always perform poorly in external examinations. This may be attributed to the fact that the needed

foundation for reading is weak. Teaching reading is one of the important skills to be taught by the primary school teacher. Every child needs to develop the reading ability in order to succeed in his or her academics. No serious learning can take place if a child cannot read and write.

The primary school is a gateway to education while reading at this level is the foundation skill that all children need if they are to succeed in life (Phajane, 2012) quoting Teale (2003). Similarly, Stahl (2004) opines that reading forms the basis of all language skills, because the ability to read what is written can only be meaningful if it can be read and deciphered. It is against

this backdrop that reading is assumed to be an essential part of any learning process at all levels of education. Therefore, the teaching of reading must be effectively carried out in accordance with the five critical areas of teaching reading at the primary school namely; phonemic awareness, phonics, fluency, vocabulary and comprehension method. This study, therefore, attempts to compare the effects of using phonics and fluency methods and traditional method on reading achievements of the primary one pupil in Niger State. The result of this comparative study on reading achievements of pupils will explicitly highlight which of the methods for the teaching reading that can be adopted and emphasized by teachers.

In this study, phonics and fluency methods are used as one method and traditional/rote learning as another method. The reason for this is that majority of the public primary schools in Niger State are not operating nursery schools and the pupils experience teaching/learning reading with a combination of methods. The pupils have no opportunity of attending nursery classes where they ought to have learnt certain skills before the primary education. Secondly, the schools sampled in this study did not operate nursery classes.

The aim for undertaking this study arose from the researchers' encounter with the pupils in the primary schools as they passed through early reading stages. The pupils were struggling to read and were taught by teachers who do not know or have knowledge of teaching reading at the foundation level. A close interaction with the pupils showed that they had not learnt the rudiments of reading with the use of phonics method and so, they cannot comprehend reading through phonics and

fluency methods. The result of the observation of the pupils necessitated the need to undertake a study on effects of phonics and fluency methods on reading achievements of pupils in the primary schools in Niger State.

### **Problem Statement**

In the primary schools in Nigeria and public primary schools in Niger State in particular, pupils struggle to read and therefore encounter difficulties in reading. The inability of the pupils to start reading right from primary one is worrisome and so, a pragmatic approach to the problem is needed. But before then, what exactly are the factors responsible for this development? Nnolim (1991) asserts that teachers saddled with the responsibility of teaching reading at the foundation level are generalists and know very little or nothing about reading and no skills necessary for helping children to overcome their reading problems. In the same vein, Umolu (1991) and Onukaogu (2002) confirm and opine that teaching children reading at the foundation level requires reading skills. Unfortunately, many teachers had no such skills in their training and so the generality of them do not know how to teach reading.

The scholar statement above and the observation by the researchers indicate that the inability of the pupils at the foundation level to improve on their reading achievement is predicated on the inadequacies of teaching skills or methods and lack of adequate knowledge on the part of their teachers. Therefore, gaps have been created at that level as a result of the primary school teachers' lack of understanding of the relevance of phonics and fluency methods to teaching reading or their inability to use the methods effectively or both. Whatever the case may be, the

question that needs to be answered in this direction is, can effective use of phonics and fluency methods enhance the reading achievement of pupils in primary one as against the use of the traditional method?

### **Objectives of the Study**

The major objective of this study was to compare the effects of phonics, fluency and traditional methods on the reading achievements of pupils in the primary schools in Niger State. Specifically, the study was to:

- i. Compare the effects of using phonics methods and traditional method on the achievement of pupils taught letter sound identification, blending of sounds, isolation of initial phonemes and substitution of phonemes.
- ii. Compare the effects of using fluency methods and traditional method on the level of fluency achievement of pupils taught word recognition.

### **Research Questions**

The following research questions were considered for this study.

- i. What are the effects of using phonics method and traditional method on reading achievement of pupils taught letter sound identification, blending of sounds, isolation of initial phoneme and substitution of phoneme?
- ii. What are the effects of using fluency methods and traditional method on reading achievement of pupils taught word recognition?

### **Hypotheses**

The following null hypotheses were formulated for this study.

- i. There is no significant difference between the achievement of pupils

taught letter sound identification, blending of sounds, isolation of initial phoneme and substitution of phoneme through phonics and traditional method.

- ii. There is no significant difference between the achievements of pupils taught word recognition through fluency method and traditional method.

### **Literature Review**

Phonics can be defined as a set of rules that specify the relationship between letters in the spelling of words and the sounds of spoken language. For the English language, these relationships are predictable but not completely consistent. However, they are consistent enough to be very useful to young children and helping them learn to decode unfamiliar words (Foorman, Francis, Fletcher, Schatschneider and Mehta, 1998). Phonics instruction is intended to help young readers understand and use the alphabetic principle. This principle says there is a systematic, if sometimes irregular relationship between graphemes (letters and letter combinations) and phonemes (individual speech sounds). Effective phonics instruction enables children to use these relationships to read and spell words accurately and rapidly. Phonics instruction also serves as a memory aid that helps students remember and apply rules and generalizations for matching sounds and letters.

### **Fluency Method**

Years ago, fluency was understood to mean rapid word recognition that freed up space in the reader's working memory for use in comprehending the message of the text. That is, fluent readers need to put less effort into word recognition and therefore have more information available for

comprehension. Later studies of fluency by Rasinski, (1990); Hooks and Jones, (2002) expanded this understanding by clarifying that fluency can also involve grouping words within a sentence into phrases which make what is read easier to comprehend.

Grouping words into meaningful phrases and reading with expression help the reader to understand the text by making what is being read resemble natural speech. Therefore, fluency can also be viewed as recognizing the words in a text rapidly and accurately and using phrasing and emphasis in a way that makes what is read sound like spoken language. Studies have identified a close relationship between fluency and comprehension. That is, pupils who are low in fluency also show difficulty comprehending what they read.

## **Methodology**

### **Research Design**

In this study, the research design employed was quasi-experimental design. This design has been described as field experimentation that lack full laboratory control and isolation and is always used by researchers outside the laboratory settings (Sambo, 2005). The main reason for employing quasi-experimental design was because it used the pre-test and post-test result comparison to determine changes in the dependent variables after treatment had been implemented (Salkind in Bell, 2010).

### **Population of the Study**

The population of this study comprised of all the primary one pupils in Niger State public primary schools. The State has twenty-five (25) local government areas grouped into seven education zones. The total population for this study was 146,800 pupils.

### **Sample Size and Sampling Procedure**

The sample size for this study was determined using Research Advisor (2006) Table of Sample Sizes. Since the population of the study was 146,800, the sample size was 340 pupils.

20% of the Local Government Council in the state was sampled. That means six (6) Local Government areas were sampled out of twenty-five (25) Local Government Areas. A simple random sampling was used to select the six (6) Local Government areas according to their zones. In each zone, two (2) Local Government Areas were finally selected. Also, a simple random sampling was used to select two (2) schools from each Local Government area. A total of twelve (12) schools were selected as samples. A simple random sampling was used to select two groups; experimental and control schools.

The experimental and control schools were pre-tested and post-tested to determine the level of competency of the pupils in the following literacy stages: letter sound identification, blending of sounds, isolation of initial phonemes, substitution of phonemes and word recognition.

### **Instrument for Data Collection**

For the data collection, a twenty (20)-item instrument titled Pupils Reading Skills Assessment (PRSA) was designed by the researcher. The instrument was used to assess the pupils. The instrument was divided into 5 items namely, item 1 comprised of 30 items  $\times 1 = 30$ marks, item 2 comprised of 10 items  $\times 2 = 20$ marks, item 3 had 10 items  $\times 2 = 20$  marks, item 4 had 10 items  $\times 1 = 10$  marks and item 5 had 10 items  $\times 2 = 20$  marks. The total score for the items prepared was 100%

### Validity and Reliability of the Instrument

The instrument designed for the assessment of the pupils i.e. (PRSA) was validated by three Senior Lecturers from the department of English and Primary Education, Niger State College of Education, Minna. The essence of the validation exercise was to ensure and determine the content validity, face validity and the construct validity.

The instrument designed for data collection was pilot tested at the Kuyanbana Primary School, Minna. This school was not one of the sampled schools for the study. Thirty (30) Primary one pupils in this school received teaching intervention for a period of two weeks from the researcher after which they were assessed using the instrument designed for the study. The reliability co-efficient was calculated with the aid of a computer software: Statistics Package for Social Sciences (SPSS). The reliability co-efficient (r) was 0.96. This result agreed with Murray in Mohammed (2007) which states that any reliability co-efficient that is from 0.50 – 0.99 showed that the test instrument was reliable and can be used for any research work.

### Method of Data Collection

The researcher employed the services of eleven (11) research assistants for the collection of data from the sampled schools. They were trained together with the primary one teachers of the schools so that they can keep abreast of the instrument for data collection. During the training, the research assistants and the teachers were compelled to make presentation on the literacy stages used for the teaching intervention so as to determine their competence in administering the instrument.

### Methods of Data Analysis

Research questions 1 – 2 were analyzed using descriptive statistics of mean and standard deviation. The hypotheses were tested using Analysis of Covariance (ANCOVA) at the 0.05 alpha level of significant.

### Results

**Research Question One:** What are the effects of using phonics method and traditional method in teaching letter sound identification, blending of sounds, isolation of initial phoneme and substitution of phoneme?

**Table 1: Mean and standard deviation of achievement scores of experimental group and the control group at pre-test and posttest**

Group	N	Pre-test		Posttest		Mean Gain
		$\bar{X}$	SD	$\bar{X}$	SD	
Phonics Method	208	32.26	7.64	67.05	8.34	34.79
Traditional Method	132	18.63	2.69	37.83	3.26	19.20

Table 1 shows the Mean and Standard Deviation of the achievement scores of pupils that were exposed to phonics method (experimental group) and those that were exposed to traditional method (control

group) in teaching letter sound identification, blending of sounds, isolation of initial phoneme and substitution of phoneme. The table reveals that pupils exposed to phonics method had mean

scores of 67.05 with standard deviation of 8.34 while their counterparts exposed to traditional method had mean scores of 37.83 and standard deviation of 3.26 at the post-test. This shows that differences exist between the achievement scores of the two groups in favour of those taught through phonics method. Similarly, pupils exposed to phonics method recorded higher mean gain scores of 34.79 compared to 19.20

recorded by those exposed to traditional method.

**HO<sub>1</sub>:** There is no significant difference between the achievement of pupils taught letter sound identification, blending of sounds, isolation of initial phoneme and substitution of phoneme through phonics and traditional method.

**Table 3: ANCOVA results on the achievement of pupils exposed to phonics and traditional method**

Source	Sum of Square	Df	Mean Square	F	P
Corrected Model	169.321	2	84.661	86.521	0.00
Intercept	20735.619	1	20735.619	240.376	0.00
Pretest	136.265	1	136.265	0.873	0.00
<b>Treatment</b>	<b>118.436</b>	<b>1</b>	<b>118.436</b>	<b>203.462*</b>	<b>0.03</b>
Error	31021.139	337	92.050		
Total	478024.000	340			
Corrected Total	31268.390	339			

\*Significant at 0.05 alpha level

Table 3 shows the ANCOVA result of the comparison of achievement scores of pupils taught letter sound identification, blending of sounds, isolation of initial phoneme and substitution of phoneme through phonics (experimental group) and traditional method (control group). An examination of the table shows that  $F_{cal(1, 337)} = 203.462$ ,  $p < 0.05$ . On the basis of this, hypothesis one was rejected. This implies that significant differences existed between the

achievements of pupils taught letter sound identification, blending of sounds, isolation of initial phoneme and substitution of phoneme through phonics and traditional method.

**Research Question Two:** What are the effects of using fluency methods and traditional method in teaching word recognition?

**Table 2: Mean and standard deviation of achievement scores of experimental group and the control group at pre-test and posttest**

Group	N	Pre-test		Posttest		Mean Gain
		$\bar{X}$	SD	$\bar{X}$	SD	
<b>Fluency Method</b>	<b>208</b>	<b>26.84</b>	<b>6.24</b>	<b>58.31</b>	<b>6.33</b>	<b>31.47</b>
<b>Traditional Method</b>	<b>132</b>	<b>18.63</b>	<b>2.85</b>	<b>39.64</b>	<b>3.18</b>	<b>21.01</b>

Table 2 shows the Mean and Standard Deviation of the achievement scores of pupils in the exposed to fluency method (experimental group) and those exposed to traditional method (control group). The table reveals that pupils exposed to fluency method had mean scores of 58.31 with standard deviation of 6.33 while their counterparts exposed to traditional method had mean scores of 39.64 with standard deviation of 3.18 at posttest. This shows that difference exist between the achievement

scores of the two groups in favour of those taught through fluency method. Similarly, pupils exposed to fluency method recorded higher mean gain scores of 31.47 compared to 21.01 recorded by their counterparts who are exposed to the traditional method.

**HO<sub>2</sub>:** There is no significant difference between the achievements of pupils taught word recognition through fluency and traditional methods.

**Table 4: ANCOVA results on the achievements of pupils exposed to fluency and traditional methods**

Source	Sum of Square	Df	Mean Square	F	P
Corrected Model	186.422	2	93.211	88.636	0.00
Intercept	20456.713	1	20456.713	243.635	0.00
Pretest	143.311	1	143.311	0.769	0.00
<b>Treatment</b>	<b>115.212</b>	<b>1</b>	<b>115.212</b>	<b>214.532*</b>	<b>0.00</b>
Error	32051.421	337	95.106		
Total	464524.000	340			
Corrected Total	32154.276	339			

\*Significant at 0.05 alpha level

Table 4 shows the ANCOVA result of the comparison of achievement scores of pupils taught word recognition through fluency method (experimental group) and traditional method (control group). An examination of the table shows that  $F_{cal}(1, 337) = 214.532$ ,  $p < 0.05$ . On the basis of this,

hypothesis two was rejected. This implies that significant difference exists between the achievement of pupils taught word recognition through fluency and traditional methods.

### Major Findings of the Study

- i. The performance of the primary school pupils taught letter sound identification through the phonics method was higher than those taught with the traditional method.
- ii. The performance of primary school pupils taught blending of sound through the phonics method was higher than those taught with the traditional method.
- iii. The performance of those taught isolation of initial phoneme through phonics method performed better than those taught with the traditional method.
- iv. The performance of those taught substitution of phoneme through the phonics method was higher than

- those taught with the traditional method.
- v. Finally, the performance of those taught word recognition through the fluency method was higher than those taught with the traditional method.

### **Recommendations**

The following recommendations were derived from the findings of the study.

- i. Phonics method should be used to teach letter sound identification in the primary schools.
- ii. Primary school teachers should use phonics method to teach blending of sounds.
- iii. The pupils should be taught isolation of initial phoneme through phonics method.
- iv. Substitution of phoneme should be taught using phonics method.
- v. Fluency method should be considered for the teaching of word recognition in the primary schools.

### **Suggestions for Further Studies**

- i. The phonics method used to teach reading skills in this study can be replicated in other parts of Nigeria and beyond.
- ii. A study of the perception of teachers in the use of phonics method to teach reading skills can be conducted to ascertain their feelings and reactions.
- iii. A study on whether pronunciation can be taught in the primary schools using phonics and fluency methods could be conducted.
- iv. A study on the effects of comprehension and vocabulary methods on pupils' reading skills could also be conducted.

### **References**

- Bell, D.D. (2010). Exploring Phonemic Awareness in pre-school aged English language learners: *Ph. D dissertation submitted to School of Teacher Education, The Florida State University for a degree of Doctor of Philosophy.*
- Foorman, B., Francis, D., Fletcher, J., Schatschneider, C., and Mehta, P. (1998). The role of instruction in learning to read. Preventing reading failure in at risk children. *Journal of Education Psychology*, 90 (1), 37 – 55.
- Mohammed, K. (2007). A study of teachers' perception of effective use of inquiry strategy in teaching social studies in Niger State. *Unpublished (M.Ed) dissertation submitted to the Department of Arts and Social Sciences Education. University of Abuja, Nigeria.*
- Nnolim, V.C. (1991). The role of the teacher in laying the foundation for literacy at the primary level. A self-concept approach to reading. *Literacy and Reading*. Vol. 6
- Onukaogu, C. (2002). Some classroom hints for the effective teaching of reading in Nigeria schools and colleges. *Literacy and Reading*. Vol. 9 2 – 26.
- Phajane, H.M. (2012). Methods used for reading instruction at primary schools in the Bojanala District of North Province. *Unpublished M.Ed Dissertation submitted to University of South Africa.*
- Rasinski, T. (1990). Investigating measures of reading fluency. *Educational Research Quarterly*, 14 (3), 34 – 44.

The Research Advisors. (2006). Retrieved  
<http://researchadvisors.com>  
8/26/2016.

Umolu, J. (1991). Reading association and  
challenges of literacy for all by the year  
(2002). *Literacy and Reading*. Vol. 6

Sambo, A.A (2005). Research method in  
education. Ibadan Stirling Horden  
Publishers Ltd.