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Effects of Oral Fluency Package on Reading Achievements of Pupils in Rural Primary Schools in Ondo State, Nigeria

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Abstract:

Depressed levels of reading performance in English which is the language of literacy in the lower primary schools appeared noticeable among the children of rural migrant farmers in Ondo State. It is against this background that this study examined the effects of oral fluency package on pupils' achievement in reading. The study adopted the quasi-experimental design of non-random sampling. Population consisted of all non-Yoruba-speaking rural primary four pupils of Ondo State. Sixty subjects in intact classes of 30 pupils from two rural primary schools purposively selected made up the sample size. Two research questions and one hypothesis were tested in the study. Data were collected through the use of validated instruments tagged Oral Reading Fluency Scale (ORFS) and the Multi-Dimensional Fluency Scale (MDFS) with reliability coefficients of 0.68 and 0.65 respectively. Descriptive statistics such as mean, media and standard deviation were used to analyze the research questions while ANCOVA was used to test the hypothesis collected at 0.05 level of significance. The study found out that fluency intervention, using the Scientifically Based Reading Research (SBRR) approach, significantly increased the reading rates of the struggling readers in the experimental group in the L2 ($F_{cal} = 5.81 > F_{val} .000, p < 0. 05$).

1. Introduction

Literacy, an ageless concept and a lifelong process (Carter 2000), has been described as the core of learning, with schooling as the major route for its acquisition (Education for All (EFA), 2005). Expertise in literacy is a sure way of ascertaining success in the academic achievements of the primary school pupils. Therefore, the role of reading in a child's education cannot be over-estimated in the teaching-learning process. The USA Literacy Act 1991 cited by PageAhead (2010) described literacy as an individual's ability to read...and solve problems at levels of proficiency necessary to function on the job and in society, to achieve one's goals, and to develop one's knowledge and potential.

Reading has been described as a skill needed in every facet of life by learners (Omojuwa, 1984; Unoh, 1998). Corroborating this assertion was the particular mention by the National Teachers' Institute of Nigeria (NTI) (2006) which spelled out the unique and indispensable roles that reading plays in the life of students. These are:

- Reading is indispensable for effective learning to take place.
- Reading exposes students to serious learning tasks throughout their academic periods in life.
- It is used to source and acquire information
- It is used for editing the works of others and acquisition of knowledge
- It is used for understanding the ideas of others.

The Microsoft Encarta Premium (2009) hitherto provided a succinct importance of reading as

- The growing technicalization of society has brought increasing demands for literacy, which the schools are hard pressed to meet. A higher level of literacy is needed in business and industry, in the armed forces, and even in everyday life. The reading ability needed to comprehend materials important to daily living, such as income tax forms and newspapers, has been estimated to be as high as the 12th-grade level. Some efforts have been made to simplify forms and manuals, but the lack of sufficient reading ability definitely impairs a person's capacity to function in modern Western society.

But how do learners achieve expertise in literacy appears to be the focus of recent research in literacy. Many factors have been observed by researchers as contributing to literacy problems in learners. The most obvious anywhere is slow-reading which is brought about by lack of fluency (Bell, 2001; Page-ahead, 2010; Raskinki, 2005; Bean et al 2010). UNESCO at its General Conference in 1958 (Aderinoye, 1997; EFA, 2005; EFA, 2006) gave a guidepost for the measurement of literacy definition as a person who can with understanding, read and write a short simple statement on his [or her] everyday life.

Fluency has been described as the benchmark of a set of skills that allows readers to rapidly decode a text while maintaining high level of comprehension (Raskinki,2004; Time4Learning, 2010). The value of fluency to readers, particularly to students, cannot be over estimated. At the primary school level, the pupils learn to read. At the secondary school level, they experience a shift from learning to read, to reading to learn. At this level, students now read for meaningfulness and understanding of their texts. At every level of instruction, fluency is required to gain comprehension. The findings of For-PD (2005) hammers that:

Students, who fail to recognize words with automaticity, spend incredible amount of time decoding rather than making meaning from the text. Reading-demands are high, so students with poor reading fluency usually fall behind. Once students fall behind, their motivation to read also wanes. Students with poor reading fluency read less in a given amount of time reducing the profound impact of comprehension.

Readers who are able to identify words instantly have enough attention to focus on the text meaning. To ensure adequate comprehension, automatic fluency must be developed in the children.

To achieve this feat, it is imperative to pay attention to the languages of instruction. The UNESCO has advocated that greater focus must be paid to the language(s) in which literacy is learnt and practised (EFA, 2005). Consequently, as dictated by Nigeria's language policy, the Yoruba language, which is a mother tongue (MT/L1), as well as a language of the immediate environment (LIE) in Ondo State, is used for instructions at the lower primary school level. On the other hand, the English language, which is the second language (L2), is used for instructions at the upper primary school level. For primary school learners to succeed, it is required that they master reading in the two languages of instruction.

1.1. Ondo State Learners' Linguistic Background and National Language Policy

Ondo state is a state in the South Western part of Nigeria where the Yoruba language is predominantly spoken. The state comprises Akure, Ondo, Ikale, Ilaje, Owo, Akoko, and Ijaw indigenes. Yoruba language is predominantly the mother tongue (MT) and the language of the immediate environment (LIE) of the Ondo State people except for the Ijaws, who are found in the riverine areas of the state whose language is Izon, a language that is typically different from Yoruba. Even though Yoruba language is widely spoken in Ondo State, every locality in the state has its own variant of the standard Yoruba language, which is of common use to its people. But for social, business, and formal interaction as far as the use of the Yoruba language is concerned, the standard Yoruba to which none of the indigenes can lay claim is used.

The distinct standard Yoruba is the language of instruction in the lower primary school in Ondo State as dictated by the language Policy of the country. It is the language of communication in texts, and media programmes that are written and diffused in the mother tongue. The codified standard Yoruba language is the accepted mother tongue (MT) and the language of the immediate environment (LIE) in Ondo State because of its linguistic uniformity. Fortunately, Yoruba is one of the three accepted major languages in Nigeria.

Section 1. paragraph 8 of The National Policy on Education (1977, revised; 1981,1996, 1998, 2004) states:

- In addition to appreciating the importance of language in the educational process as a means of preserving the peoples' cultures, the government considers it in the interest of national unity that each child should be encouraged to learn one of the three major languages other than his mother tongue. In this connection, the government considers the three major languages in Nigeria to be Hausa, Igbo and Yoruba--- Government will ensure that the medium of instruction will be principally the mother tongue or the language of the immediate environment''(Section 2,11(3))...In the primary education, (section 3,15 (4)) the policy states "government will see to it that the medium of instruction in the primary school is initially the mother tongue or the language of the immediate community

At this juncture, the investigator points out the existence of pupils who are non-indigenes of Yoruba speaking areas of Nigeria in Ondo State public rural primary schools. These are migrant children from Benue, Edo, Cross River, Kogi, AkwaIbom, Delta, Anambra, Imo and Abia States. These are children who have Igbo, Idoma, Edo, Ibibio, Egede, Ebira, Hausa, Igarra as their mother tongues. In addition, they speak Pidgin English. It is shocking to find out that this category of children who are targeted as the population and subjects of this research constitute about 80% of the children in the selected primary schools of this research.

Some of these children could speak non-fluent and unstandardized Yoruba. However, the fact that an individual can speak a particular language is never a proof that he or she can read in that language. Amoloye (2000) affirms that

- The ability to communicate and express one's thoughts in a logical, coherent, and eloquent manner is very important in any educational process. Language is the potent means of performing these stated activities effectively. Hence language is very crucial to the development of the individual who is the main target of any educational enterprise

On the other hand, it was also observed that many of them could neither speak nor read in the two languages of instruction, the second language (L2) which is English and the language of immediate environment (LIE) Yoruba, which is the language of literacy as well as instruction in the lower primary school.

1.2. Statement of the Problem

Depressed levels of literacy-development in the area of reading have been observed in certain rural primary school children in the language of the immediate environment (LIE) which is Yoruba, inspite of the fact that they got instruction in Yoruba language in the lower primary school. In fact at that level, they had the Yoruba language as the language of literacy, as well as that of instruction. The same level of depression was also noticeable in this category of children in the Second Language (L2) in spite of the fact that English language was taught to them as a subject in the lower primary school. Now that they are in Primary 4, the Second Language (L2) has now become the language of instruction, as well as an academic subject.

The researcher is addressing oral reading fluency here, because the lower primary school categorically addresses literacy. Lack of literacy skill, particularly the oral fluency skills which are basics to reading will result in academic failure. It is an undisputed fact that literacy skill is germane to the acquisition of formal education and the functionality of personal and social development all over the world, and its value cannot be over-estimated.

1.3. Purpose of the Study

There had been a lack of change in the handling of reading, particularly in the primary schools. The purpose of this research was threefold. As guided by the research questions, this research was carried out to find out

- (1) If the subjects exposed to treatment in Oral Reading Fluency following the Scientifically Based Reading Research approach would perform better than the subjects in the control group in both the second language (L2) which is English, and the language of immediate environment (LIE) which is Yoruba.
- (2) if there were better performances at the comprehension levels of the pupils who were exposed to the oral reading fluency treatment, in both the second language (L2) which is English, and the language of immediate environment (LIE) which is Yoruba.

1.3.1. Research Questions

The study aims to answer the following questions:

1. Will pupils exposed to the treatment in Oral Reading Fluency (ORF) in the L2 (English) perform better than those not exposed to the treatment?
2. Will pupils exposed to the treatment in Oral Reading Fluency (ORF) in LIE (Yoruba) perform better than those not exposed to the treatment?

1.3.2. Research Hypotheses

The following hypotheses were generated and tested for the study.

- Ho₁. There will be no significant difference in the Oral Reading Fluency (ORF) in English (L2) reading of subjects exposed to the treatment and those not exposed to the treatment.
- Ho₂. There will be no significant difference in the Oral Reading Fluency (ORF) in the LIE (Yoruba) reading of subjects exposed to the treatment and those not exposed to the treatment.

1.4. Population of the Study

The population for this study consisted of the non-indigenes specifically non-Yoruba speaking rural primary four pupils of Ondo State. These were children whose mother tongue (MT) was different from Yoruba language, the mother tongue of the South Westerners of Nigeria. The pupils in this category had Yoruba as the language of immediate environment (LIE).

1.5. Sampling and Sampling Technique

Purposive sampling was used to select the two schools that were involved in the experimental study. What informed the purposive sampling bothered on the unique nature of the learners of the two schools involved in the study. It was noted that about 80% of the pupils in the classes were made up of non-Yoruba indigenes, whose mother tongue was not Yoruba but who used Yoruba as the language of the immediate environment (LIE).

On the other hand, the subjects were selected through non-randomized technique. Their selection was made by using the ORF reading pre-test to assign them into the study groups from the intact classes. They were carefully-matched by assigning the first fifteen boys and first fifteen girls who were non-Yoruba migrant children into the study groups. The class registers also indicated this status.

1.6. Research Design

The 2 x 2 factorial design used in this study is diagrammatically represented in Table 2. The 2 x 2 factorial design used in this study involved a non-random assignment of subjects into two groups, the treatment group, and the control group. There was a reading pre-test to assign the subjects into the appropriate groups in each school. They were carefully matched following the precepts of SBRR approach. As the researcher wanted equal numbers of male and female subjects for the study, the first fifteen boys and first fifteen girls were selected in each intact class to be subjects of study.

1.7. Research Instruments

The major instruments used for the purpose of this research were

- (1). The Raskinski (2005) Oral Reading Fluency Scale (ORFS) was adopted to measure the first two components of fluency (speed rate and the accuracy) of the subjects in the L2 (English) and LIE (Yoruba). The following passages were the tools used at the reading sessions:
 - (i). A grade-level passage in the L2 (English) submitted to readability to test the speed rate and accuracy.
 - (ii). A grade-level passage in the LIE (Yoruba) extracted from grade-level text 3 to test the speed rate and accuracy.
- (2). The Zutell and Raskinski's (1991) Multidimensional Fluency Scale (MDFS) was adopted to measure the third component of fluency (the prosodic reading) of the subjects. The tools used at the reading sessions are given below
 - (i). A grade-level passage in the L2 (English) which was submitted to readability.

(ii). A grade-level passage in the LIE (Yoruba) extracted from grade-level text 3 to test the prosodic reading. They were coded Oral Reading Fluency Test (ORFT) and LIEORFT respectively.

1.8. Collection of Data

The treatment group was exposed to six-week instructional programme during which the pupils were taught the skills for oral reading fluency by the researcher herself following the SBRR approach (see Appendices B and I).

At the end of the sixth week, the oral reading fluency tests were conducted for both the control and experimental groups.

2. Results

2.1. Research Question 1

Will pupils exposed to the treatment in oral reading fluency (ORF) in English (L2) perform better than those not exposed to treatment?

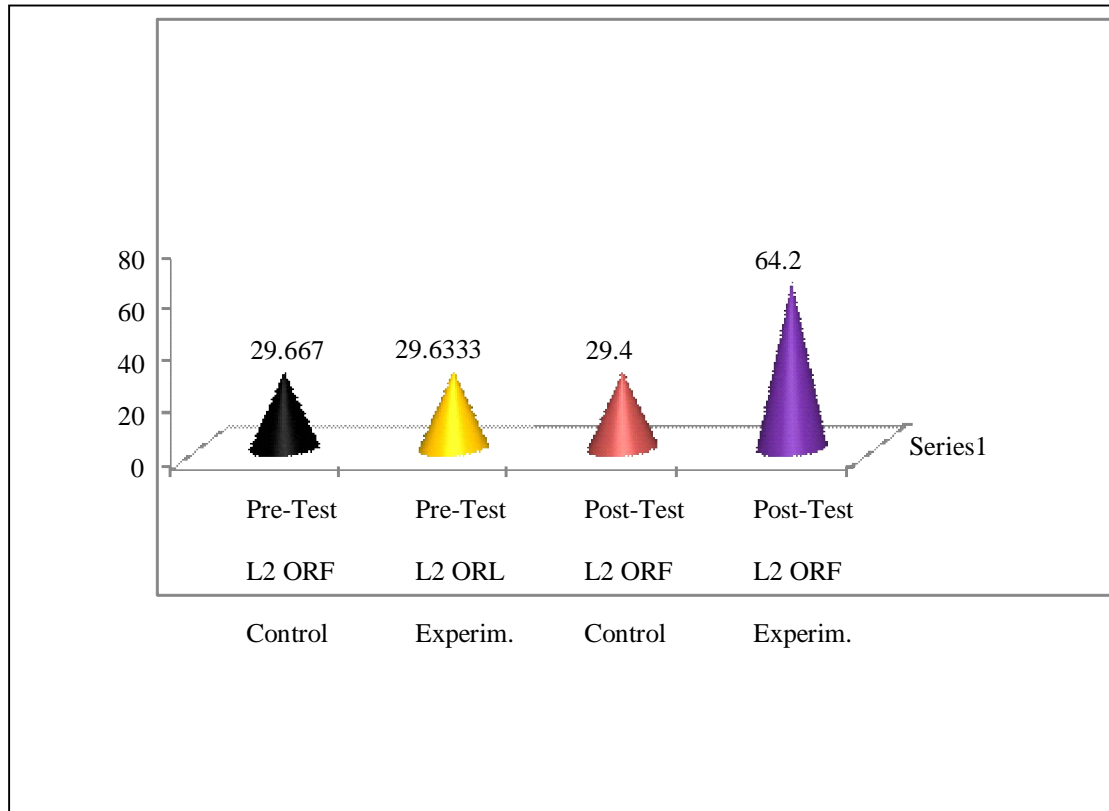


Figure 1: Graphical illustration of Subjects Exposed to the Treatment in Oral Reading Fluency in English

A close look at Figure 1 shows that the mean score of ORF in L2 (English) for pre-test control group (29.67) was higher than the post-test control group (29.40). The experimental group's post-test mean scored ranked the highest with a mean score of 64.2. The pupils exposed to the treatment performed better than those subjects in the control group which means that oral reading fluency in English has an effect on the pupils.

2.2. Research Question 2

Will pupils exposed to the treatment in oral reading fluency (ORF) in Yoruba (LIE) perform better than those not exposed to treatment?

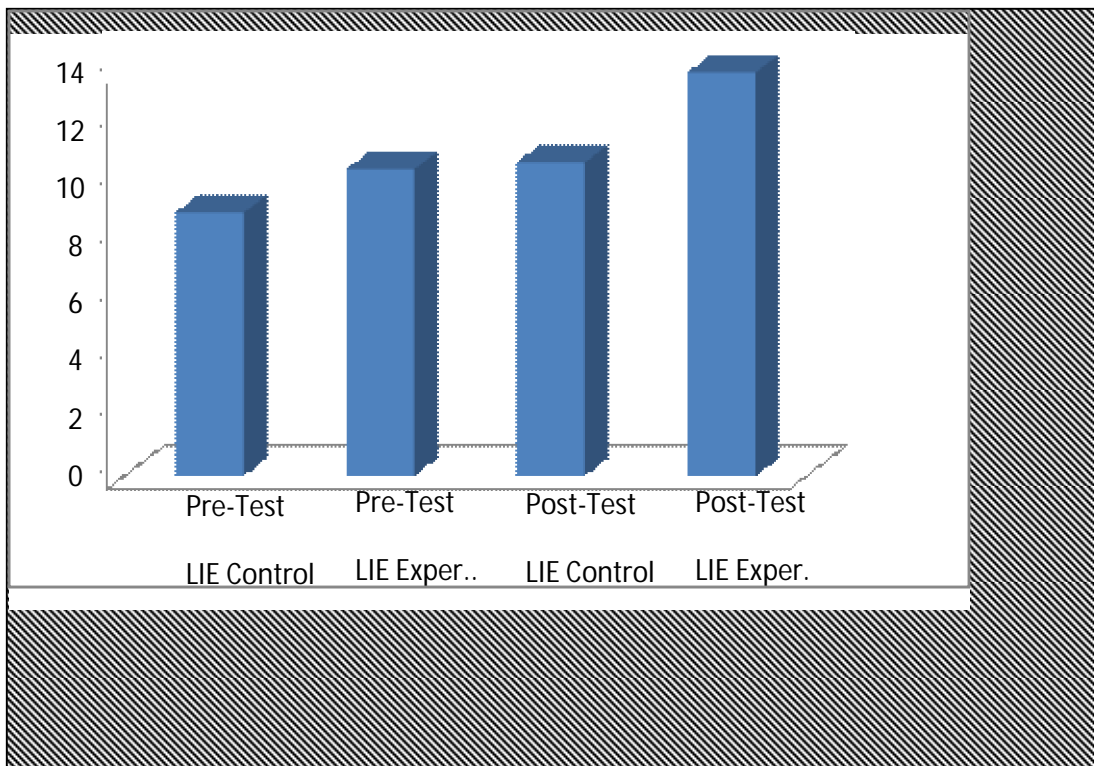


Figure 2: Graphical illustration of Subjects Exposed to the Treatment in Oral Reading Fluency in (LIE) Yoruba.

Figure 2 reveals a hierarchical arrangement of subjects’ performance in LIE (Yoruba). For pre-test control group, it had a mean score of 9.07, followed by pre-test experimental group with 10.57. At the post-test level, the control group had a mean score of 10.8 while, the experimental group had the highest mean score of 13.9. The subjects in the experimental group had an edge in their performance over the subjects in the control group. This is a clear manifestation of the superiority of the SBBR approach.

2.3. Testing of Hypotheses

In testing the null hypotheses, Analysis of Covariance (ANCOVA) statistical test was performed to ascertain whether significant differences exist in the means scores.

2.3.1. Hypothesis One

- There is no significant difference in the Oral Reading Fluency (ORF) in English (L2) reading of subjects exposed to the treatment and those not exposed to the treatment.

In order to test this null hypothesis, the mean score of subjects exposed to ORF and those not exposed to ORF in the L2 of the post-test were compared. Analysis of Covariance (ANCOVA) was employed in the process.

Source of Variation	Sum of Squares	df	Mean Square	F-cal	F-tab	Sig.
Between Groups	13.42	1	.383	5.81	.000	*
Within Groups	1.58	58	.066			
Total	15.00	59				

* Significant at 0.05 level.

Table 1: Summary of Mean Difference in the Oral Reading Fluency in English between the Subjects Exposed to Treatment and those not Exposed to Treatment

From the information in table 1, the result shows that a significant difference existed between the control group and experimental group in the oral reading fluency in the L2 (English). The data on the table shows that the F- cal. = 5.81 is greater than the F- value of .000 at P>.05 and at df = 59.

3. Discussion of Results

This section presents the findings of the research in relation to the hypotheses generated.

The conceptual model adapted from National Reading Panel (2002) was designed to study the effectiveness of Oral Reading Fluency Package on bilingual rural migrant primary school children using the Scientifically Based Reading Research. The research aimed at improving the oral reading fluency of these struggling readers in both the L2 and the LIE.

Hypothesis 1. (Ho1) There is no significant difference in the Oral Reading Fluency (ORF) in English (L2) reading of subjects exposed to the treatment and those not exposed to the treatment.

The finding in hypothesis one shows that there is a significant difference in the mean scores of the Oral Reading Fluency in the L1 of the control group and the experimental group in the post-test. Hence the hypothesis is rejected because the experimental group performed better than the subjects in the control group in the post-test as shown in table 7. This is a proof of the superiority of the new approach SBRR to which the experimental group was exposed. This supported the findings of Mastropieri & Leinart (2001), Moats (2004), Kelly's (2007) which stated that fluency intervention, using the SBRR approach, helped an increase in the reading rate of the rural struggling readers. Hence, the idea that fluency skills should be focused and treated was upheld.

It is remarkable to mention here that at post-test level, the best reader recorded a reading rate at 99 words correct per minute (WCPM), with 80% accuracy, and 75% at prosodic reading while 80% overall fluency was recorded in the experimental group. This was against the pre-test record which was at the rate of 51 words correct per minute, with 33% accuracy, 44% at prosodic reading and 28 % overall fluency. With these migrant struggling readers, the intervention has been found effective. NAEP, (1995), Kammenu'i (2001) classified children, (who are the subjects of this research) into fluent and non-fluent readers. Fluent readers will read between 120-90 words per minute (WCPM), while non-fluent readers will read between 89 and 65 words correct per minute (WCPM). This is why reading intervention is a continuous process and should be made so.

Hypothesis two. There is no significant difference between experimental male and female subjects exposed to the treatment in Oral Reading Fluency (ORF) in the L2 (English).

This hypothesis is upheld because the result shown in table 14 does not show a significant difference in the mean scores of the male and female subjects exposed to the treatment in the Oral Reading Fluency at the post-test level ($F_{cal} = .081 > F_{val} .780$ at $P > 0.05$).

This finding rejected the findings of Sainsbury and Twist (2009), Italic (2010) that boys usually lagged behind girls in reading achievement.

The finding also supports the report of Gary Marks (2008), who reiterated that, girls performing better than boys in oral reading achievement as reported by some researchers was not generalized to all the countries of the world. He reported that the gender-gaps between countries could be traceable to variations between countries in terms of macro-societal factors like the government policy, school organizations and the teacher variables. The upheld hypothesis is a proof that oral reading fluency is not gender-stereotyped

4. Conclusion

With regards to the hypotheses guiding this research, and their results, the study has pointed out the noticeable positive change that occurred in the subjects who were exposed to the treatment as a result of the new instructional strategy.

5. Recommendations

In view of the findings, the study recommends that the SBRR approach should be embraced, while more attention should be focused on the reading problems of rural migrant children in the villages. Reading centres should be established in universities, and cities where reading researches on reading improvement strategies would be solely carried out, with adequately trained reading professionals. Reading assessments should be introduced in schools and made a continuous exercise as it is done in advanced countries of the world.

However, I recommend knowledge and attitude enhancement strategies to teach this intervention with the goal of curing reading deficiencies that this intervention was slow in curing in these migrant children, specifically in the Language of the Immediate Environment (LIE) which is Yoruba.

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