

Effect of Synthetic Phonics Reading Strategy on Pupils Achievement in Reading

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Abstract: The present study sought to investigate the effect of synthetic phonics reading strategy on pupil's achievement in public primary schools. To this end, 120 primary one pupils participated in the study. The participants were randomly assigned to experimental and control schools. While the pupils in the control group were taught basic reading skills using the conventional method (rote memorization), the pupils in the experimental group were taught reading using the synthetic phonics reading strategy. A pre-test was conducted before the commencement of the study. After 8 weeks teaching to both groups a post-test was administered to the pupils which comprise of initial sound identification, word reading, short sentence reading, dictation and writing and oral vocabulary/word picture matching. The scores obtained from the test were subjected to descriptive and inferential statistics and the result indicated that the experimental group performed better than the control group in the reading test.

Key words: Reading, pupils, synthetic phonics, achievement, dictation, oral vocabulary/word

INTRODUCTION

Reading plays an essential role in the daily lives of most people. It must be developed right from the early years of an individual. World Book (2004) defines reading as an act of getting meaning from printed words. Reading means recognizing letters and groups of letters as symbols that stand for particular sounds. The sounds in turn form words that express ideas in written or printed form. The skill acquired in reading, in turn, promotes the acquisition of language skills like listening, speaking and writing. Thus, Dorkchandra (2010) opined that reading is one of the four necessary important language skills for those learning English language as a second language. It is evident that reading ability is tied to academic achievement of any kind, hence, children need to acquire the English language early, if they are to make success in their educational career. This informed the Federal Government of Nigeria to state that primary education is the bedrock of any educational system.

Primary education begins at the age of six to eleven plus for the majority of Nigerians. It is the education given to children in an educational institution prior to their entry into secondary school (Federal Republic of Nigeria, 2004). Primary school in Nigeria comes under two stages, the

lower basic (Primary 1-3) and the upper basic (Primary 4-6). Thus, children spend 6 years in the primary school and graduate with a school leaving certificate. The subjects taught at this level include Mathematics, English language, Bible knowledge, Science, Computer, French, Cultural and Creative Arts and one of the major Nigerian languages. Since, one of the objectives of primary education is to inculcate permanent literacy and numeracy and the ability to communicate effectively, it therefore, shows that Nigeria appreciates the importance of language as a means of promoting social interaction and national unity as well as preserving cultures. This major objective also stresses the importance that children's ability to read leads to the achievement of the overall national educational goals.

It is in recognition of this fact that the Federal Government recommends the mother tongue or L1 as the language of instruction at the lower basic level and English language as the language of instruction from the middle basic level. Children are therefore, required to listen, speak, read, write and study in the English language that they are not familiar with. They learn with a bilingual second language and go through the rigours of using two languages, one of which is Foreign to their natural speech habits, home background and culture. The

implication is that for the Nigerian primary school child, vocabulary knowledge and word recognition which are necessary for reading fluency and understanding what they read are problematic. Majority of the children can neither recognize written words nor know the meaning and hence are not able to pronounce the words and extract meaning from the text. This is in agreement with the view of Fakeye and Ogunsiji (2009) and Omo-Ojugo (2009) who also observed that many pupils in government primary schools in Nigeria cannot pronounce a word in a given text or cannot write down correct spellings of words dictated to them by their class teachers and fail to attain the required level of reading by the fourth year. Furthermore, the researcher also observed in the course of school visits that teachers still read for pupils in primaries 4-6 who are supposed to be fluent readers during examinations and this could be attributed to the poor foundation they had in their lower primary school.

Several reasons have been adduced for pupil's inability to read and researchers such as Dorkchandra (2010), Eshiet (2012) and Elui (2014) have identified lack of reading resources, cultures, strategies, knowledge and teachers use of unsuccessful teaching methods as factors responsible for pupils inability to read. Pupils are made to go through repeated drills where teachers chant the words and pupils repeat in unison after the teacher (Dixon *et al.*, 2011). This method allows pupils to memorize words as whole units, followed by sentences accompanied by pictures. This method helps pupils to read words which do not reflect the sounds of what they stand for, e.g., saw. Unfortunately, children are quite unable to decode unfamiliar words. Fambro (2011) states that the reason is that they do not have basic phonic skills to help them read.

The phonics method encourages the pupil's to begin reading through auditory training that is training their ears to recognize the sounds of letters and associating these sounds and letters in written form. This is of course, carried to the association of the letters and sounds with specific words which they learn in the process. The Anonymous (2010) describes the phonics method as a method of introducing the sounds of the language to children through words that can be related to such sounds. The phonics method teaches children to "sound out" new words. In most cases, they first learn what a letter stands for and then learn to associate the sounds and the letter to specific words. Yellin *et al.* (2007) defined phonics as "a structured relationship between phonemes (sounds) and graphemes (letters)". Many countries in

Europe use a synthetic phonics approach. Where children learn very early on how to blend letter sounds in order to decode unfamiliar words.

Synthetic phonics is a more accelerated form of phonics. Children are taught letter sounds upon starting school before they learn to read and even before they are introduced to books. The synthetic phonics programme used for this study is the Jolly Phonics scheme that uses the synthetic phonics strategy for teaching the sounds in a way that is funny and multi-sensory with actions for each of the 42 L sounds. Sue and Sarah (2009) explained that Jolly Phonics is a scheme which is attached to the synthetic phonics method which is associated with a storyline as well as pictures to be coloured and a corresponding action. By performing an action for each sound, children are using kinesthetic, auditory and visual and speech to help them remember and master what they were taught. This multi-sensory method is very motivating for pupils and teachers. Primary one pupils need to be aware of the sounds of the letters because reading occurs when the learners are familiar with the isolated sounds of the letters.

A number of empirical research studies in both L1 and L2 contexts have advocated the positive effect of synthetic phonics on children's literacy development. For instance, Farokhbakht and Nejadansari (2015), conducted a study on the effect of using synthetic multisensory phonics (Jolly Phonics) for teaching early literacy skills on Iranian EFL to young learners. To this end, 100 zero beginners of English aged 10-12 participated in the study. The participants were randomly assigned to experimental and control classes. While the students in the control group were taught English literacy skills through the rote traditional phonics, the learners in the experimental group were taught English literacy via the synthetic multisensory phonics approach named Jolly Phonics. After a 1 month English course, all the participants took a reading and a spelling test. A set of descriptive and inferential statistics were used to analyze the scores obtained from the test. The results demonstrated that the experimental (Jolly) Phonics had a better performance on the reading and spelling tests. According to the researchers, the synthetic multisensory method of Jolly Phonics contributed to higher reading and spelling abilities of students in the early stages of English literacy. Undoubtedly, the reason for achieving this is that the students in the control groups were taught English literacy through the rote traditional phonics which lacks any form of motivation for children as the knowledge acquired through the rote learning cannot be applicable to new (unseen) words. However, the learners in the experimental group learnt literacy skills via Jolly Phonics

which resulted in systematic literacy learning by presenting a synthetic multisensory child-centred approach in teaching the key skills for reading and writing.

However, a number of researchers such as Wyse and Styles (2007) have questioned the efficiency of synthetic phonics arguing that special features of language reading regarding literacy acquisition must be taken into account before selecting a method for teaching literacy. They opined that the data obtained from cross-language studies offer some grounds on why English is a relatively difficult language to learn to read. The first reason is that English syllables are phonologically complex. English does not follow a simple CV syllable structure and this affects children's ease of learning. The second is that English writing systems are very inconsistent. As a result, some words such as yacht must be learnt as holistic patterns. In order to optimize the teaching of early reading in English, all of these factors must be taken into consideration.

From the assertions above, phonological complexities and irregularity of English orthography cannot enable one to conclude that synthetic phonics instruction will produce incredible results in reading skills, hence, further research is needed to be conducted in this regard. Furthermore, in spite of the gains achieved in the use of this method in other localities, primary school teachers are still not conversant or are reluctant in using it, especially, in government schools and there is still the persistent problem of children's inability to read. Therefore, the researcher finds the synthetic phonics strategy an empirical issue to be explored. If this approach worked in other parts of the country, it leaves a gap to be explored in Oshimili South Local Government Education Authority of Delta State. The idea of replicating this study in this locality will also give empirical evidence of the stated successes by Foreign and local researchers and it will further enhance the educational advancement in our culture.

Significance statement: The findings of this study when printed in electronic or academic journals and otherwise will be beneficial to a number of persons including the Ministry of Education and State Universal Basic Education, teacher training institutions, curriculum planners, primary school teachers, primary school pupils and researchers. It may provide pedagogical information that would help to promote teaching and learning of reading to young children using synthetic phonics reading strategy, so as to increase their interest in reading.

Purpose of the study: The purpose of this study is to investigate the effect of synthetic phonics reading strategy on the reading achievement of primary one pupil's in Oshimili South Local Area of Delta State.

Specifically, the study sought to: ascertain the difference in the mean achievement scores of pupils taught reading using synthetic phonics reading strategy and those taught using the conventional method.

Research question: What is the mean achievement scores of pupils taught reading using synthetic phonics reading strategy and those taught using the conventional method?

Based on the above research question, the following null hypothesis was formulated: there will be no significant difference in the mean achievement scores of pupils taught reading using synthetic phonics reading strategy and those taught using the conventional method.

MATERIALS AND METHODS

This is a quasi-experimental study. The researchers conducted a week's training for teachers in the experimental group. The 120 in four schools and four teachers were the core participants in the study. A pre-test was conducted before the commencement of the instruction after seeking the consent of the head teachers using the researcher constructed test which comprises initial sound identification, word blending test, sentence reading test, oral vocabulary test, dictation and picture matching test. Two control schools with 69 pupils proceeded with the ordinary lessons which were organized using the conventional method in their English reader Macmillan book one. It comprises of pupils learning the 26 L of the alphabet and the words associated with the alphabets, making sentences with new words, dictation, the formation of words with letters of the alphabets were taught to the pupils with flash cards and pictures. While the experimental group which is made up of 59 pupils were taught the 42 L sounds using stories, flash cards, formation, identifying sounds in words, blending and dictation. The 42 sounds were taught in the following order:

- s a t i p n
- c k e h r m d
- g o u l f b
- a i j o a i e e e o r
- z w n g v o o O O
- y x c h s h t h t h
- q u o u o i u e e r a r

This allows the possibility of forming very simple words from the very early stages. For example, words like sat, pan, pin, and tip could be formed from the first group of sounds taught. Furthermore, 5 basic literacy skills namely, letter sounds, letter formation, blending, segmenting and tricky words were taught by the teacher by introducing each letter sounds with stories, actions, flash cards, formation, sounding, segmenting, dictation and jolly songs. This strategy offers pupil's opportunities to move part of their bodies, see, hear and sing to remember and motivates them to learn (Sue and Sarah 2009). Thereafter, words that cannot be learnt by blending or segmenting were taught by practice, repeated drills and these words are called tricky words because they have irregular spellings. Thereafter, the same test was administered 8 weeks after the instruction.

The instrument for data collection was a researcher constructed Reading Achievement Test (RAT) which comprises of 5 sections as follows: initial sound identification: it comprises of 30 words, pupils are required to identify the beginning sound of each word. Word reading test: a 20 item test whereby pupils were required to read words correctly. Sentence reading test: it comprises of 5 short sentences which requires pupils to read correctly. The 2 marks for perfect conception, 1 mark for partial conception and 0 mark for no conception. Dictation/writing test: a 20 item words are dictated to pupils to write down in their papers. Oral vocabulary/picture matching: it comprises of 10 pictures of objects and pupils were required to identify the pictures. It also comprises of a 10 item picture/word matching where pupils are required to draw lines to match pictures with names of the object.

The instrument for data collection was subjected to face and content validation. Face validation was established by experts in childhood education, experienced primary one teacher and measurement and evaluation experts; these specialists examined the instrument in terms of the age of the respondents and developmentally appropriateness of the questions. While content validity was established by generating the items based on the table of specification and their comments and suggestions helped to modify the instrument.

A trial test of pre-test and post-test was used to establish the internal consistency and reliability of the test. The data obtained was analysed using the Kuder Richardson method (K-R21). An internal consistency of

0.95 was obtained. This method was used because the test was dichotomous in nature. Pearson correlation test of equivalent was used to find out the similarity of the pre-test and the post-test of reading achievement. To ensure the similarity of the baseline and the end line assessment and a temporal stability of 0.86 and 0.79 were obtained.

The data collected after the treatment were analysed in line with the research question and hypothesis. Descriptive statistics such as mean and standard deviation were employed in answering the research question. While Analysis of Covariance (ANCOVA) was used to test the hypothesis at P and 0.05 level of significance/ANCOVA was used for the analysis of group score differences between the treatment and the control groups using pre-test scores as covariates.

RESULTS AND DISCUSSION

Research question: What is the post achievement mean scores of pupils taught reading using synthetic phonics strategy and those taught using the conventional method?

Result in Table 1 shows the mean achievement scores of pupils who were taught reading using synthetic phonics strategy (experimental group) and those taught using conventional method (control group). The experimental group who were exposed to synthetic phonics strategy had a mean achievement score of 27.51 with a standard deviation of 3.14 at the pre-test and mean achievement scores of 64.94 with a standard deviation of 7.85 at post-test. On the other hand, pupils who were taught using conventional method had mean achievement scores of 27.36 with a standard deviation of 4.95 at pre-test and mean achievement scores of 41.49 with a standard deviation of 6.98 at post-test. There was a mean gain score difference of 23.30 recorded for the two groups in favour of the experimental group (synthetic phonics strategy). This implies that the group exposed to synthetic phonics strategy performed better compared to those exposed to conventional method with a difference of 23.30. Moreover, the obtained standard deviation from pupils in both the experimental and control groups was relatively small; indicating that the respondents were homogenous in their responses. The result indicated that the use of synthetic phonics strategy enhanced pupil's achievement in reading.

Table 1: Mean and standard deviation of pupil's achievement mean score in reading

Groups	N	Pre-test		Post-test		Mean gain scores	Mean gain difference
		Mean	SD	Mean	SD		
Experimental group	51	27.51	3.14	64.94	7.85	37.43	23.30
Control group	69	27.36	4.95	41.49	6.98	14.13	

Table 2: Summary of Analysis of Covariance (ANCOVA) of pupil's mean achievement score in reading when exposed to synthetic phonics strategy and those not exposed

Source	Type III sum of squares	df	Mean square	F-values	Sig.
Corrected model	16243.160 ^a	4	4060.790	74.354	0.000
Intercept	6475.785	1	6475.785	118.573	0.000
Pretestach	73.774	1	73.774	1.351	0.248
Method	15970.894	1	15970.894	292.431	0.000
Error	6280.631	115	54.614		
Total	340279.000	120			
Corrected total	22523.792	119			

Hypothesis: There is no significant difference in the mean achievement scores of pupils taught reading using synthetic phonics strategy and those exposed taught using look and say method.

Result of the analysis in Table 2 shows that teaching strategy is a significant factor on pupil's achievement in reading; $F(1, 115) = 292.431, p = 0.000$. Thus, the null hypothesis of no significant difference is rejected. This is because the exact probability value of 0.000 is less than the level of significance set at 0.05. Therefore, the researcher concludes that there is a significant difference in the mean achievement scores of pupils taught reading using synthetic phonics strategy and those taught using the conventional method in favour of pupils taught using synthetic phonics strategy.

The main purpose of this research study was to find out the effect of synthetic phonics reading strategy on pupils achievement in reading. The result from the statistics showed that the experimental group who were exposed to synthetic phonics instruction using the jolly phonics package performed significantly better than the control group who were taught reading the traditional rote memorization (conventional) method under learning the 26 letters of the alphabets, associating the letters with words through pictures, learning new words from their English reader and making sentences with words learnt. The findings of Elui (2014), Eshiet (2012) and Dorkchandra (2010) have identified lack of reading resources, cultures, strategies, knowledge and teachers use of unsuccessful teaching methods as factors responsible for pupils inability to read. Also, pupils are made to go through repeated drills where teachers chant the words and pupils repeat in unison after the teacher. This method of reading in public primary schools has been identified by the researcher as a predominant factor of pupils inability to read compared to their counterparts who were exposed to the synthetic phonics strategy. This is in agreement with Blaiklock and Haddow (2007) who opined that for one to be successful in reading, one must possess the skills of phonemic awareness and that pupils engaged in synthetic phonics instruction have higher achievement in the reading of the Foreign language.

Furthermore, empirical studies of Farokhabht and Nejadanseri conducted on the use of synthetic

multisensory phonics in teaching literacy skills on EFL to young children in Iranian schools found out that the synthetic phonics method of Jolly Phonics contributed immensely to higher reading and spelling abilities of students in the early stages of English literacy than the control schools. This undoubtedly corroborates the findings of this study which further emphasizes that the conventional method of teaching lacks any form of motivation for children as the knowledge acquired through rote learning cannot be easily applicable to new or unseen words.

However, the findings of this study were not in line with the findings of Wyse and Styles (2007) who asserted that due to phonological complexity and inconsistency of English writing system, it is unlikely that one method of teaching phonics such as synthetic phonics will be superior to others and produce outstanding results in literacy acquisition in children. Nonetheless, unlike what was pointed out in their study, the synthetic phonics reading strategy led to significant gains in pupils reading achievement. This variation in achievement was as a result of synthetic phonics strategy which takes cognizance of learning irregular words. This is usually called tricky words and they are taught separately.

In summary, the findings of this present study advocated that the synthetic phonics reading strategy significantly influenced pupils achievement in the reading test. The reason could be deduced from the fact that the pupils in the control group were not adequately motivated to learn to read compared to their counterparts in the experimental group who were taught the synthetic phonics through interactive and multisensory activities which provides a funny and play way method for children to learn without forgetting sounds learnt. Hence, the synthetic phonics strategy that adapted the Jolly Phonics package brought out the interest in learning to read for young learners.

CONCLUSION

To the curriculum planners, it will help them to take cognizance of this strategy in adopting and designing the

curriculum to suit the needs of the learners who were highly motivated using this synthetic phonics strategy, thereby discouraging the use of rote memorization and repeated drills in teaching reading. Finally, the study provides empirical evidence that the synthetic phonics reading strategy can be successfully implemented in the public school curriculum for beginning readers irrespective of the fact that it can be further verified.

IMPLICATIONS

The results of this study may add to the inadequate body of research conducted on English as a second language ESL in Nigeria. Given the fact that learning to read has been a problematic issue in public primary schools, teachers of young pupils might find this study helpful for teaching beginning readers to overcome the difficulties they encounter with sounding and blending letters together to form words. Furthermore, the findings may be beneficial to teacher training institutions. If they are sensitized on the findings of this study through workshops and seminars, it may provide them with useful methods of and strategies for training pre-service teachers and retraining of in-service teachers.

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