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Research Article

Role of Phonics Strategy on Readers Performance: A Case of Word Recognition and Letter Identification

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Abstract

In this study, the role of phonics strategy on readers performance: a case of word recognition and letter identification was examined. One research question guided the study and a null hypothesis was formulated and tested. The sample comprised 174 Lower Basic 3 struggling readers located in six intact classes in 6 public schools using multi-stage sampling technique. Word Recognition Performance Test (WRPT) with reliability coefficient of 0.88 was utilized for data collection. Mean and standard deviation were used to answer the research question. Analysis of Covariance (ANCOVA) was used to test the hypothesis at 0.05 alpha level. Finding of the study revealed that there is no significant difference in the mean performance scores of pupils exposed to phonics strategy and those exposed to letter identification strategy in word recognition. This means that phonics and letter identification strategies could equally enhance struggling pupils' performance in word recognition. Based on this, it was recommended that colleges of education and faculties of education in all Nigerian universities should expose teacher trainees to phonics and letter identification strategies so that they in turn can teach word recognition effectively after graduation in order to improve the country's literacy level.

Keywords: Phonics, Strategy, Readers, Performance, Word, Recognition, Letter, Identification.

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Introduction

Learning to read is a social process requiring engagement between the learner and people around her or him (Aganyi & Agera, 2009). Similarly, Oyetunde (2009) states that learning to read is too complex to be left to chance. Children have to be taught to read. They require guidance as well as abundant opportunities to practice consistently and regularly in meaningful literacy activities. They are likely to go through different stages in learning to read such as, oral language foundation stage, print awareness stage, word recognition stage among other stages to be able to learn to read.

There is the need for pupils to acquire word recognition ability to be able to read fluently. Word recognition, according to Literacy Information and Communication System (LINCS, 2011), is the ability of a reader to recognize written words correctly and effortlessly. It sometime refers to as isolated word recognition as it involves a reader's ability to recognize words individually from a list without looking out for familiar words as context clues. LINCS further states that rapid and effortless word recognition is the main component of fluent reading and explains that those skills can be improved by practicing with flash cards, word lists and word grids. Word recognition is a stage at which pupils are helped to recognize or acquire sight words as well as words figured out in context while reading printed materials. If pupils are able to recognize most of the words in a given book effortlessly, they will begin to read and make meaning out of the book (Oyetunde, 2009). Word recognition is also the ability to identify, read and analyze the meaning attached to the word. It is the basic foundation skill in reading upon which learners of reading depend (LINCS, 2018). A gradual growing knowledge of letter sequence and spelling patterns also account for word recognition (Oyetunde, 2009).

Effective word recognition strategies could permit children to quickly and automatically translate the letters or spelling pattern of written words into speech sounds so that they can identify words and gain rapid access to their meanings (Chard & Osborn, 2013). Children must learn to identify words quickly and effortlessly so that they can focus on the meaning of what they are reading. This clearly indicates that knowledge of phonics strategy is important for preparing children for the development of word attack skills and sight vocabulary.

Struggling readers need assistance in form of some reading strategies. There is need for teachers to expose them to high frequency words and content words within their oral and reading vocabulary level in order to succeed in learning to read. For a child to succeed in learning to read and later acquire the skills of reading to learn, the child must learn to read and be prepared to read. Opega (2008) views reading readiness as the most complex of all the reading skills. A child needs a level of maturity to be able to read, and relevant experience to be able to handle the task of reading. The child's verbal competence and ability to associate symbols with appropriate sounds is important. Children differ in their abilities, some are ready

to read at the age of five while some are not ready until they attain the age of eight or nine. On the average, most children are ready to read at the age of six (Opega, 2008).

Reading readiness is a gradual development from non-reading to beginning reading (Oyetunde, 2009). This indicates that there is no sharp demarcation between reading readiness stage and learning to read. In practice, readiness simply means that children are at a point where they are ready to begin the process of learning to read. This implies that certain activities and experiences are necessary for preparing children to cope with a given learning task. There is research evidence that in building pupils' reading readiness, certain research-proven strategies could be adopted and core in these strategies is phonics strategies (Kelly & Campbell, 2013; Vajime & Odey, 2018; Agbum & Asue, 2019).

Phonics refers to the relationship between individual sounds (phonemes) and the letters (graphemes) that represent them. A phoneme can be represented by a single letter /a,e/, two letters /th,ck/, three letters /igh, chr/ or even four letters /ough/ as in the word 'although' (Oyetunde, 2009;).The phonics strategy has a great role to play in learning to read and reading readiness. Phonics is referred to as sound (phoneme) and letter (grapheme) relationship. Letters are associated with their sounds to give pupils a tool for recognition of words they cannot read. Synthetic phonics helps children to segment words. For instance, bread is blended as /br.ea.d/ and segmented as /br/, /ea/, /d/ to read words. Analytic phonics teaches mastery of beginning, middle and ending sounds, that is using units of sounds such as consonant clusters and vowels to represent words as in bed/bag, cup/cut, pick/ and peck (Oyetunde, 2009).

Explicit phonics instruction must teach blending of sounds and word patterns (Kelly & Campbell, 2013). Cunningham (2009) advocates that phonics should be taken as the first approach to teaching learning to read. The author also acknowledges that other authorities in reading have argued that children should have meaningful literature and acquire a workable sight vocabulary before learning sound-letter relationships to help them decode unfamiliar words. The National Reading Panel (2000) supports the fact that phonics is a critical skill to learning to read. Lloyd & Wernham (2009) affirm that through their experience with pupils in teaching learning to read, children can learn to read fluently with phonics and phonemic awareness much better than children taught through other methods.

It could be inferred from the foregoing that learning to read early in life is not an option but what every child should be made to experience for great and future success in all life endeavours. This is because any child who fails to learn to read early and well will not easily learn other life skills and will unlikely flourish in the school of life (Muodumogu, 2018). Muodumogu (2013) affirms that learners who get off to a slow start rarely become good readers because early reading of codes leads to wider reading habits both in and out of school.

In order to ascertain what many authors have said about phonics strategies, this study examines the Role of Phonics Strategy on Readers Performance: A case of word recognition and letter identification, thereby enhancing teaching learning to read.

Research Question

This study is guided by the research:
What will be the effect of phonics strategy on struggling readers' mean performance scores in word recognition compared with the letter identification strategy?

Hypothesis

There is no significant difference in the mean performance scores of struggling readers' exposed to phonics strategy and those exposed to the letter identification strategy in word recognition.

Research Method

This study employed the pretest-posttest quasi-experimental research design owing to the fact that intact classes were used and there was no possibility of randomization. This is because pure experimental studies are not easily conducted in a classroom setting since certain classroom situations do not permit excessive manipulation and control (Achor & Ejigbo, 2010). The design was made up of one experimental group and one control group. This design implied that all the groups took pre-test before the treatment and post-test at the end of the intervention. The population for this study consisted of 22, 172 Lower Basic 3 pupils in 809 public primary schools in Education Zone B of Benue State during the 2019/2020 academic session (Benue State Universal Basic Education Board, 2019). The choice of Lower Basic three pupils was based on the fact that they require a thorough investigation in early reading skills as a transition class before moving to the upper basic level where they are expected to be independent readers. Perhaps, preparing this class in early reading skills might prevent further reading and educational challenges. It was, therefore, imperative to ascertain the effect of phonics and the conventional strategy (letter identification) on lower basic three pupils' performance in word recognition. Data for the study were collected using, namely, Word Recognition Performance Test (WRPT) for identifying struggling readers. This contains a list of 100 words adapted from Jolly Phonics Word Booklet, Phonics Lesson Plans (PLP) and Letter Identification Lesson Plans (LILP) which served as intervening instruments. The phonics strategy exposed pupils to the first and second strings of the phonics sounds / s,a,t,i,p,n/ ;/ c/k, e, h, r, m, d/ and the Jolly Phonics Word Booklet. The pupils were taught phonics sounds using the first and second strings of the Jolly phonics sounds. They were taught blending and segmenting of words (sounds). For example, /s. u. n /,/s/, /u/, /n/ sun, /a. n. t /, /a

/, /n/, /t/ ant. In the letter identification strategy, the students were taught using letter names, a strategy that is common in Nigerian primary schools. The group used letter names to learn words and or names of objects such as: Aa for apple, Bb for ball, Cc for cat. The research question was answered using mean and standard deviation. The hypothesis was tested at 0.05 alpha level using Analysis of Covariance (ANCOVA). ANCOVA was considered appropriate because it could be used to establish mean score differences between the experimental groups based on a pretest–posttest scores. It is also used in a situation where subjects are selected or used as intact groups to remove initial differences so that the groups are considered equivalent (Ali, 2006).

Results and Discussion

The results of the data analysis and interpretation are presented according to the research question and hypothesis formulated for the study. Data related to the research question and hypothesis are presented on separate tables to aid comprehension of the analysis and interpretation of results. The data presented were analyzed using mean and standard deviation to answer the research question. The hypothesis was tested using Analysis of Covariance (ANCOVA) at 0.05 level of significance. The decision rule was that null hypotheses were rejected if the P-value was less than 0.05 and not rejected if otherwise.

Research Question 1

What will be the effect of phonics strategy on struggling readers' mean performance scores in word recognition compared with the letter identification strategy?

Table 1. Effect of Phonics Strategy on Struggling Readers' Mean Performance Scores in Word Recognition Compared with the Letter Identification Strategy

Strategy		**Pre-WRPT**	**Post-WRPT**	**Mean Gain**
	Mean	12.5795	47.7273	35.1478
Phonics Strategy	N	88	88	
	Std. Deviation	13.58051	25.49001	
	Mean	4.8605	38.8023	33.9418
Letter Identification Strategy	N	86	86	
	Std. Deviation	5.36034	22.75745	
Mean difference				**1.2060**

Table 1 shows that 88 students were exposed to phonics strategy, while 86 students were exposed to letter identification strategy. The table reveals that the mean scores of students that were exposed to phonics strategy is 12.58 with a standard deviation of 13.58 during pre-test and 47.73 with a standard deviation of 25.49 in the post test. The mean scores of students that were exposed to letter identification strategy is 4.86 with a standard deviation of 5.36 during pre-test and 38.80 with a standard deviation of 22.76 in the post-test. Table 1 further shows that the mean gain of students that were exposed to phonics strategy is 35.15and that of students exposed to letter identification strategy is 33.94. The difference between the mean gains of the two groups is 1.21 in favour of the students exposed to phonics strategy.

Hypothesis 1

There is no significant difference in the mean performance scores of struggling readers' exposed to phonics strategy and those exposed to the letter identification strategy in word recognition.

Table 2. ANCOVA of Mean Performance Scores of Struggling Readers' Exposed to Phonics Strategy and those Exposed to the Letter Identification Strategy in Word Recognition.

Source	**Type III Sum of Squares**	**Df**	**Mean Square**	**F**	**Sig.**
Corrected Model	6011.849[a]	2	3005.925	5.245	.006
Intercept	162485.911	1	162485.911	283.516	.000
PreWRPT	2547.328	1	2547.328	4.445	.036
Strategy	1400.742	1	1400.742	2.444	.120
Error	98001.766	171	573.110		
Total	430487.000	174			
Corrected Total	104013.615	173			

a. R Squared = .058 (Adjusted R Squared = .047)

Table 2 reveals that F (1,173) = 2.444; p = 0.120> 0.05. Since p is greater than 0.05, the null hypothesis is not rejected. This implies that there is no significant difference in the mean performance scores of pupils exposed to phonics strategy and those exposed to letter identification strategy in word recognition.

The finding revealed that there is no significant difference in the mean performance scores of pupils exposed to phonics strategy and those exposed to letter identification strategy in word recognition. This means that phonics and letter identification strategies could equally enhance struggling pupils' performance

in word recognition. This finding implies that the use of phonics strategy helps struggling readers to learn how to read and spell. This is also applicable to letter identification strategy. Phonics and letter identification strategies could enable struggling readers to understand the connection between phonemes and letter symbols. Knowledge of the relationship between spellings and sounds predicts the speed and accuracy in reading single words while speed and accuracy in reading single words enhance word recognition (Muodumogu, 2014).

The finding disagrees with that of Aba (2010) that there is significant difference in the performance of pupils exposed to phonics method and their counterparts taught with Look and Say method in favour of phonics method. The finding further disagrees with that of Vajime and Odey (2018) that letter identification had no considerable effect on achievement in beginning reading while phonics and word recognition were seen to have considerable effect. This is also contrary to Atiatobe (2014) who discovered that phoneme segmentation activities yielded better results for beginning readers in a Reading Achievement Test (RAT) rather than the conventional method. Agbum and Asue (2019) also investigated the effect of synthetic phonics and the conventional strategy on beginning readers in primary one on reading and writing and found that synthetic phonics had positive effect in reading and writing than the conventional method.

Conclusion

The role of phonics strategy on readers performance: a case of word recognition and letter identification is presented. Results of the study showed that phonics and letter identification strategies could enhance performance in word recognition. Evidently, the use of these strategies helps struggling readers learn to read and spell. This further implies that the poor performance of students in word recognition would invariably improve if teachers adopt phonics and letter identification strategies. Based on these findings, the study recommends that colleges of education and faculties of education in all Nigerian universities should expose teacher trainees to phonics and letter identification strategies so that they in turn can teach word recognition effectively after graduation in order to improve the country's literacy level.

References

Aba, L.A. (2010). *The relative effectiveness of three methods of teaching beginning reading: Look and Say, the phonics and the combined methods in Gboko.* Unpublished dissertation, Benue State University, Makurdi.

Achor, E.E., & Ejigbo, M.A. (2010). *A guide to writing research report*. Lagos: Pam Artrade.

Aganyi, E.A., & Agera, A. (2009). Home environment as a foundation for development of literacy skills.

Literacy and Reading in Nigeria, 12(1), 16-19.

Agbum, T.P., & Asue, B. (2019). Enhancing pupils' literacy skills using synthetic phonics. *Journal of Pan African Reading and Literacy Research*, 1(1), 128-135.

Ali, A. (2006). *Conducting research in education and the social sciences*. Enugu: Tashiwa Networks Limited.

Atiatobe, S. I. (2014). The effects of phoneme activities, phoneme segmentation games and phoneme segmentation, fluency and combined strategies on reading achievement of beginning readers in Obanliku. Unpublished dissertation, Benue State University, Makurdi, Nigeria.

Benue State Universal Basic Education Board. (2019). *Student population in public primary schools in Education Zone B for the 2019/2020 academic session.* Makurdi: SUBEB.

Chard, D.J. & Osborn, J. (1999). Phonics and word recognition in early reading programs. *Guidelines for Accessibility,* 14(2), 107-117.

Kelly, C. & Campbell, L. (2013). New horizon for learning. Retrieved on April 14, 2013 from

www.crystalkelly@msv/.wednet.edu

Cunningham, P. M., & Hall, D. P. (2009). Making words first grade. Boston, MA: Pearson.

LINCS (2011). Word recognition. Retrieved April 6, 2013 from *www.illinois.ed.gov*

LINCS (2018). Word recognition. Retrieved March 14, 2021 from *https//accounts.binance.com/en/register?ref-38078947*.com

Muodumogu, C.A. (2013). Evolving effective reading programmes in Nigeria: Key issues and strategic

responses. A paper presented at the seminar for SUBEB Chairmen and Commissioners of Education held at the Headquarters of National Commission for Colleges of Education (NCCE), Abuja.

Muodumogu, C.A. (2014). Evaluation of school and home strategies for literacy development of beginning

readers in the North Central Zone of Nigeria. *European Journal of Educational Sciences,* 2(1), 41-58.

Muodumogu, C.A. & Odey G.O. (2018). Influence of topics of interest on students achievement in literacy

skills. *Journal of Research in Curriculum and Teaching,* 10(2), 19 – 27.

National Reading Panel (2000). *Teaching children to read: An evidence based assessment of the scientific*

research literature on reading and implications for reading instruction. Washington DC: National Institute of Child Health and Human Development.

Opega, R.Y. (2008). *Language arts methods*: *An introduction.* Makurdi: Aboki Publishers.

Oyetunde, T.O. (2009). *Beginning reading scheme: Empowering teachers to help their pupils become good*

readers. Jos: LECAPS Publishers.

Vajime, D.R., & Odey, J. E. (2018). Effect of some reading readiness strategies on achievement in learning to read: A single subject study. *Benue State University Journal of Education,* 3, 277-286.