

DIAGNOSIS OF DIFFICULTIES IN READING COMPREHENSION IN THE PRIMARY SCHOOL IN KADUNA SOUTH AND NORTH LOCAL GOVERNMENT AREA OF KADUNA STATE, NIGERIA: IMPLICATIONS TO THE LEARNING OF SCIENCE

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Abstract

Quite a number of primary school pupils have difficulties with reading comprehension. This assumption has been proved by this study. The field survey design was adopted. A total of 6300 pupils and 150 teachers in upper primary formed the population of the study. The sample consisted of 105 pupils and 15 teachers. The random sampling technique was used. Ten research questions were stated to guide the investigation, three self-developed instruments were used to collect data. These included a Pupil Diagnostic Reading Comprehension Questionnaire (PDRCQ), a Pupil Diagnostic Reading Test (PDRCT) and a Teacher Questionnaire on Pupil Weakness in Reading Comprehension (TQPWRC). Data collected were analyzed using the simple percentage. The study revealed reasons why pupils in public schools have difficulties in reading. Recommendations were made on how teachers can help pupils acquire reading skills and comprehension ability.

Keywords: *Diagnosis, Comprehension, Implications*

Background of the Study

The role of language in science learning is coming into focus for science education researchers from a number of perspectives with a constructivist paradigm. Language is being explored for its role in facilitating and assessing learning and in understanding complex interactions related to science teaching and learning (Kamen et al., 1997). Wellington and Osborne (2001) underlines that research findings indicates that language in all its forms, matters to science education. According to Henderson and Wellington (1998). That for many pupils the greatest barrier to learning science is the language barrier to limited English proficiency learners.

According to the National Institute of Child Health and Human Development (2006) reading is the single most important skill necessary for a happy productive and successful life. Developing those skills takes active engagement from an early age. Hoss (2002) stated that many children living in poverty lack the skill that will allow them to become lifelong readers. A person with low reading ability may not be able to understand scientific information or directions, or apply for jobs that require basic scientific skills.

Reading is a complex cognitive process of decoding symbols in order to construct or derive meaning (reading comprehension). It is a means of language acquisition, of communication, sharing information and ideas. It is a complex interaction between the text and the reader which is shaped by the reader's prior knowledge, experiences, and attitude. Reading comprehension is the ability to read text, process and understand its meaning. An individual's ability to comprehend a text is influenced by pedagogic principles, his/her traits and skills, Reading comprehension is defined as the level of understanding of a text/message, this understanding comes from the interaction between the words that are written and how they trigger knowledge outside the text/message (Keith, foorman, Perfetti, & Seidenberg, 2001, & Tompkins, 2011).

Reading disorder is a learning disorder that involves significant impairment of reading accuracy speed, or comprehension to the extent that the impairment interferes with academic achievement. Reading disorder is most commonly called dyslexia. Dyslexia, however, usually includes deficits in spelling and writing as well as reading. Common characteristics of children with reading disorder include: 1) difficulty identifying single words. 2) problems understanding the sound in words, sound order or rhymes. 3) problem with spelling. 4) omitting or substituting words. 5) poor reading comprehension. 6) slow reading speed (oral or silent).

Statement of the Problem

The acquisition of knowledge and full mental development of the child depends on his ability to read meaningfully, failure to accomplish this may make him an academic failure. Emphasis is therefore placed on meaningful reading to help the child acquire the ability to read effectively. In many developing nations, Nigeria in particular has an educational system that does not place premium on developing reading ability. Pupils pass through the primary school without having their reading ability adequately developed and tested (Guy, 2007). It is very necessary to give pupils some basic training in reading at the primary school level in order to prepare them for further academic pursuit. It is true that failure experienced in reading often leaves some severe moments on the personality of the learner.

Reading difficulties occur on a continuum, meaning that there is a wide range of learners who experience reading difficulties. There are those learners who are diagnosed with a reading-related disability but there is an even larger group of learners (without diagnoses) who require targeted reading assistance, about 10 million children have difficulties learning to read (Duncan, 2001). The good news is that 90, to 95 percent of reading impaired children can overcome their difficulties if they receive appropriate treatment at early ages.

Purpose of the Study

This research work was aimed at identifying the difficulties in reading comprehension at the upper primary level and suggesting remedies. The research investigations were based on the following:

1. The problem of pronunciation found among most pupils.
2. Reasons why some pupils omit words when reading.
3. The extent to which repetition of words occurs when reading
4. To consider the population of pupils in each class and how it affects vocal reading comprehension
5. Assess the degree of substitution error.
6. Assess the competency and qualification of the teachers teaching English language.
7. Find out about teaching strategies used by teachers to teach reading comprehension.
8. Find out if the schools have language laboratories and well stocked libraries.

Research Questions

This study was aimed at providing answers to the following research questions

1. What is the frequency of mispronunciation errors?
2. To what extent does repetition of words occur when pupils are reading comprehension passages?
3. What is the degree of substitution error?
4. Are the teachers teaching English language in upper primary qualified to teach?
5. Does the population of the pupils in each class affect reading comprehension?
6. Do teachers allocate enough periods for teaching reading comprehension?
7. Do teachers adopt effective teaching strategies to teach reading comprehension?
8. Do schools have language laboratories?
9. What is the frequency of pupil's omission errors while reading?
10. Why is the problem of pronunciation and omission errors found among pupils?

Theoretical Framework

The Schema Theory

The goal of the schema theory is to describe information between what is in the text and how that information is shaped and stored by the reader. (Adams & Collins, 1997). The underlining assumption is that meaning does not lie solely in the print itself but interacts with the cognitive structure or schemata already present in the readers mind. These schemata are represented in Ausubel's terms ("the ideational scaffolding" or framework for understanding new information). Thus the reader

present in his/her cognitive structure schemata which constitute a cognitive filter through which one views the world and from which one predicts or makes inferences about what is read. Schemata, according Rummelhart and Ortony (1977) present generic concepts which are stored in memory. The way in which a particular concept is stored is not by remembering that isolated event in its totality down to its most basic components; but by identifying those aspects of the event related to other concept already stored. We make connections between the information in the text and what the learner already knows. Learners are able to comprehend the message in a text when they are able to call up the appropriate schema.

Cognitively Based Views of Reading

Comprehension emphasizes the interactive nature of reading and the constructive nature of comprehension. Dole, Duffy, Roehrer and Pearson (1991) have stated that, besides knowledge brought to bear on the reading process, a set of flexible, adaptable strategies should be used to make sense of a text and to monitor ongoing understanding.

Application of the Schema Theory in the Educational Setting

English teachers should give reading comprehension text to learners based on their prior knowledge to promote understanding. This implies that the teacher should adopt flexible, adaptable strategies for learners to make sense of the text being read

Significance of the Study

This study will be of immense importance to pupils, teachers, schools and the government.

Pupils

The recommendations of the study if adopted will help to reduce the degree of weakness in reading comprehension in upper primary schools.

Teachers

The study will educate teachers teaching the English language on how best to help pupils solve different problems of reading comprehension.

Schools

The suggestions from this study will guide schools on how to plan for programs such as seminars, workshops and conferences in respect of innovative teaching strategies of the English Language.

Government

The study will enlighten the Government on the need to employ competent and qualified teachers. It will also highlight the need to provide adequate facilities and learning materials for the teaching and learning of the English Language.

Literature Reviews on Reading Comprehension

The review of literature sought to explore some of the possible factors that can cause poor reading comprehension among students and provide strategies as to how students' comprehension can be improved thus enhancing their academic performance. Literature suggests that a lack of systematic direct instruction is one of the main causes of inadequately developed reading comprehension. (Carrier,

2006) despite the scientifically based research, poor comprehenders are often unaware of their inability to comprehend what they read. They may not be able to monitor their comprehension, but often times these students will realize that they are not successful academically and often experience low self-esteem and lack of motivation (Duke& Pearson, 2002). Comprehension is the ultimate goal of reading and as a result, must not be taken lightly. Struggling readers in upper elementary grades must be provided with systematic explicit instruction to improve their understanding of text.

Methods and Procedures

The field Survey research design was adopted. The primary school teachers and all the pupils in upper primary schools in Kaduna South and North Local Government Area of Kaduna State formed the population of the study. A total of 6300 pupils and 150 teachers in upper primary were on record. 105 pupils and 15 teachers were randomly selected. The instruments used included: A Pupil Diagnostic Reading Comprehension Questionnaire (PDRCQ), A Pupil Diagnostic Reading Comprehension Test (PDRCT), A Teacher Questionnaire on Pupil Weakness in Reading Comprehension (TQPWRC). The reading test was administered to the students for diagnosis. The test was scored based on reading fluency and comprehension. The distribution of questionnaires to sampled teachers and students was done by the researchers. The simple percentage was used to analyze the data.

Results and Discussion

Result

Research Question One: What is the frequency of pupil's mispronunciation errors?

Table 1: Mispronunciation Errors.

School	Pupils with 2-10 errors			Pupils with 11-15 errors			Pupils with 16 and above errors			Pupils without errors		
	N	o	%	N	o	%	N	o	%	N	o	%
A	1	3	37.3	1	4	40	0	8	27.3	0	0	0
B	1	5	42.9	1	7	48	0	3	8.6	0	0	0
C	2	8	80	0	0	0	0	0	0	7	2	0

From the above table school A had the highest number of pupils with mispronunciation errors with 16 and above errors. All the pupils made varying degrees of mispronunciation errors. School B also had 100% of the pupils with mispronunciation errors. The errors of school A and B ranged from 5 to 27 per pupil. Mispronunciation errors in school C ranged from 2 -4 per pupil. 8.6% of the total number of pupils tested had no problem of mispronunciation.

Research Question Two:

To what extent does repetition of words occur when pupils are reading comprehension passages?

Table 2: Repetition Errors

School	Pupils with 2-4 errors		Pupils with 5 and above errors		Pupils without errors	
	No	%	No	%	No	%
A	24	68.6	4	11.4	7	20
B	21	60	1	2.9	13	37.1
C	18	51.4	0	0	17	48.6

Eighty percent (80%) of pupils in school A had repetition errors, sixty-three percent (63%) in school B and 51% in school C. The number of pupils without repetition errors were twenty percent (20%) in school A, thirty-seven percent (37%) in school B and forty-nine percent (49%) in school C.

Research Question Three:
What is the degree of substitution error?

Table 3: Substitution Error

School	Pupils with 2-4 errors		Pupils with 5-6 errors		Pupils with 11 and above errors		Pupils without errors	
	No	%	No	%	No	%	No	%
A	22	62.9	10	28.6	3	8.6	0	0
B	28	80	2	5.7	0	0	5	14.3
C	28	80	0	0	0	0	7	20

From table 3, the highest number of individual error were minimal. This was within the range of 2-4 errors. Only 3 pupils recorded 11 and above errors. School B had 14.3% of the pupils with no substitution error while school C had 20%.

Research Question Four
Are the teachers teaching English language in upper primary qualified to teach?

Table 4: Analysis of Teachers Qualification

School	N.C.E English	B.Ed English	B.A English	Non-English Based
A	2	1	1	1
B	1	-	1	3
C	1	-	1	3

Table 4 shows the analysis of teachers' qualifications in sampled schools. 53% of the sampled teachers have certificates in English language while 47% are non-graduates of English language.

Research Question Five:
Does the population of the pupils in each class affect reading comprehension?

Table 5: Class size in relation to reading comprehension

School	Average number of pupils per class
A	46
B	48
C	37

Table 5 indicates average class size in relation to reading comprehension, from the figures in the table it is obvious that the classes are overcrowded.

Research Question Six:

Do teachers allocate enough periods for teaching reading comprehension?

Table 6: Allocation of Periods for Reading Comprehension

School	Number of periods per week
A	1
B	1
C	1

From the above table it is obvious that the number of periods allotted to reading comprehension is grossly deficient.

Research Question Seven:

Do teachers adopt effective strategies to teach reading comprehension?

Table 7: Adoption of Effective Strategies for Teaching Reading Comprehension

School	Adoption of effective strategies
A	No
B	No
C	No

Table 7 indicates that none of the teachers adopts effective teaching strategies to teach reading comprehension.

Research Question Eight:

Do schools have language laboratories and well stocked libraries?

Table 8: Availability of language laboratories and libraries

School	Language laboratories	Well stocked libraries
A	No	No
B	No	No
C	No	No

Table 8 indicates that primary schools in Kaduna North and South Local Government Areas neither have language laboratories nor well stocked libraries.

Research Question Nine:

What is the frequency of pupils' omission errors while reading?

Table 9: Omission Errors

School	Pupils with 2-4 errors		Pupils with 6 and above errors		Pupils without errors	
	No	%	No	%	No	%
A	17	48	11	31.4	7	20
B	21	60	6	17	8	22
C	12	34.3	0	0	23	63

Table 9 shows that school A has 80% of sampled pupils with omission errors in reading comprehension while school B has 77.1% and school C with 34.3%.

Research Question Ten:

What are the reasons for pronunciation and omission errors?

Table 8: Availability of Language Laboratories and Libraries

S/N	Reasons	Responses	Percentages
1	Lack of strategic teaching methodologies	15	100
2	Insufficient period for reading comprehension	15	100
3	Mother tongue influence	15	100
4	Lack of language laboratory	15	100
5	Neglect of reading problem diagnosis	15	100

All the respondents agreed to the five point contributors to pronunciation and omission errors.

Discussion

The pupils who are the central focus of this study had little or no prior knowledge of reading comprehension. The investigation has revealed that in most public schools reading comprehension is completely neglected. This explains why a high percentage of the pupils had omission and mispronunciation errors. 80% of pupils in school A had repetition errors, 63% in school B and 20% in school C. A high percentage of substitution errors were also recorded. 53% of the teachers had certificates in English language, but that did not make any mark of difference in the teaching of the subject. Their teaching methodologies were not strategic. The population of pupils in each class did not help matters because most classrooms were congested. Individual attention was impossible. It was also discovered in the course of the study that no school had a language laboratory. Libraries were not common sight where they existed they were poorly stocked.

Some of the problems earlier on highlighted in the course of this study have been tested and established. The teachers never taught comprehension as a lesson. At the time of investigation which was at the end of the first term and second term 2013/2014 academic session, no lesson has been taught in reading comprehension in the upper classes of the sampled schools. The pupils had little or no prior knowledge of reading comprehension before gaining entry into the upper primary schools. Some of the teachers interviewed confessed that they no longer use class readers as were done years back. Implications of results to the learning of science manifest as Poor comprehension leading to non-meaningful learning of scientific concepts and low scores.

Conclusion

One would expect that at this stage of the pupils' education that they would acquire basic skills in reading. The study has established that there is a noticeable deficiency in reading ability in primary school pupils in Kaduna South and North Local Government Areas of Kaduna state which by inference could impair the study of science.

Recommendations

Based on the findings of this study the following recommendations are made.

1. To rectify reading comprehension problems, teachers should methodologically teach pupils the various ways to handle reading comprehension task. Reference should be made to Dorathy's book on Diagnosis and correction reading instruction and Freid book on reading problems and practice.
2. Comprehension classes should be made interesting by giving pupils story base comprehension passages to read.
3. Government should provide well stocked libraries in schools to promote reading culture.
4. A multi-sensory teaching strategies should be adopted by teachers to help pupils read better, faster and comprehend literature.
5. Reading difficulties should be diagnosed and corrected. This should be done through remediation programs.
6. Teachers should be encouraged to attend seminars, workshops, conferences and refresher courses in order to keep abreast with innovative teaching strategies for English Language.
7. Where parents are literate, they should help develop reading habits in their children. Parents should read stories to their children and vice-versa depending on the age of the children.
8. The governments Federal, State and Local Government should encourage Nigerian authors financially to produce more story books in order to improve the reading habit of pupils, such books should be simple and useful to the children.
9. The governments-Federal, State and Local Government should provide language laboratories and well stocked libraries. The government should train and provide more English teachers to all schools.
10. Inspectors from the Ministry of Education should endeavor to go round schools periodically to make sure that reading comprehension and other aspects of the subject are adequately taught.
11. Daily English lessons periods should be allocated on the time table.

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