Effect of Reciprocal Peer Tutoring on Reading Achievement of Primary School Pupils in Awka South Metropolis

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Abstract

Observations and experiences by researchers in Nigeria have shown that pupils lack reading and comprehension skills and as a result, perform poorly in reading comprehension. There is, therefore, the need for instructional approach that make children strategic readers. This study investigated the effect of reciprocal peer tutoring on reading achievement of primary school pupils in Awka Metropolis in Awka South Local Government Area. Three research questions guided the study. Two null hypotheses were tested at 0.05 level of significance. The study adopted a quasi-experimental design specifically the pre-test, post-test design. The population comprised 3,419 primary five pupils in Awka metropolis and 65 pupils selected from schools that use Macmillan English who participated in the study formed the sample. Reading Achievement Test (RAT) was used as an instrument for data collection. The reliability coefficient for RAT using Kuder-Richardson Formula 20 was 0.89. Pupils in the experimental group were taught reading using reciprocal peer tutoring while those in the control group were taught reading using conventional method which is lecture method. Data collected were analysed using mean scores for research questions and Analysis of Covariance (ANCOVA) for testing the hypotheses. Major findings revealed that pupils taught reading with Reciprocal Peer Tutoring (RPT) performed significantly better than those taught with conventional method. There was no significant difference in the performance of male and female pupils taught reading with RPT. Based on the findings, it was recommended that RPT should be adopted by teachers for teaching English comprehension in the primary schools. Workshop and conferences on the use of reciprocal peer tutoring in teaching and learning of reading should be organized for teachers by school authorities and educational administrators at least annually.

Keywords: Reading, peer tutoring, primary school, pupils, achievement

Introduction

An interesting spectrum of human personalities abounds in any primary school classroom. Each individual has his or her unique academic needs. Nwosu (2012) noted that in schools individuals with diverse capabilities came to learn and to grow. Some learn how to read with ease, others learn with certain difficulties, some achieve highly and some poorly even below what is expected of them. Quite interestingly, however, the Federal Government of Nigeria in her National Policy on Education (2013) stated that the goals of primary education is to inculcate permanent literacy and numeracy and ability to communicate effectively in the recipient. (Federal Republic of Nigeria 2013). Aggarwal as cited by Nwosu (2012), sees education as process which draws out

the best in the child with the aim of producing well balanced personalities, culturally refined, emotionally stable, ethically sound. Mentally alert, morally upright, physical strong, socially efficient, spiritually upright, vocational self-sufficient and academically balanced. The school serves as one of the agents for achieving this worthwhile aim.

To achieve this aim and be successful in this 21st century, an individual requires the ability not just to read and write but also the possession of strategies that enables one to read critically so as to solve the ever complex and challenging problems confronting the society. The achievement of basic foundations in literacy is indispensable for any academic success in formal education as they created basis for further learning. A child who acquires the ability to read at an early stage is bound to improve on other cognitive demands because it is the key to educational achievement. Therefore, a child's success in school and throughout life depends, to a high extent, on the ability to read. Reading is important as it aids in the cognitive demands of learners. It is a skill that aims at facilitating the acquisition and development of relevant literacy skills for effective communication in different contents (Nwosu 2017). According to the author, becoming a reader is a continuous process that begins with development of oral language skills and leads to independent reading over time. Oral language is the ability to speak and listen, is a vital foundation for reading success. Nwosu (2017) also stressed that children learn the language of their environment as they observe, listen, speak and interact with adults and other children in their environment.

Reading for comprehension helps children or pupils to construct meaning from texts as well as to examine and extend the meaning of the text to previous reading. However, Loan (2012) opined that reading is a much more complex process involving the understanding of a whole text composed of written signs and not just mere extraction of visual information from a given code. In addition, reading is fundamental to progress and success in all other school subjects. The development of reading skills involves the participation of children, parents, educators and community as a whole, since it is process-oriented and involves socio-cultural dynamics. The importance of reading intervention in the early years of formal education is emphasized by Hecht and Greenfields (2001) who noted that few changes in individual reading skills occur after primary three. Additionally, poor academic outcomes, increased behavioural problems, higher probability

of dropping out of school are all more likely to result following failure to acquire literacy skills at primary school level.

Most pupils reading abilities are very poor and has led to low performance in reading comprehension. Aina, Ogundele and Olanipekun (2013) reported that over the years, reading achievement of pupils at the primary school has been below eighty percent and this has led to a great deterioration in their external examinations. There is a great need for innovative remediation reading strategic for primary school in Nigeria. Lack of basic skills in reading and writing has been blamed on the type of method used to teach reading the teachers. The conventional methods of instruction are chiefly and commonly used at all levels in Nigerian school (Oviawe, 2010). Oviawe further noted that in this method, the teacher assumes the more active role in the lesson, as he exposes the learners/pupils to new ideas, more like a harbinger of information. Also Amekodo (2012) stated that conventional method is widely practised because a teacher can reach a large number of pupils at the same time and a large amount of materials can be covered within a short period of time. Not that conventional method is completely bad, but its flaws remain. Lawal as cited in Ofodu (2009) stressed that through observation and personal experience that generally teachers often test pupils reading achievement instead of teaching them how to read and comprehend. The teachers equally employ the conventional approach where reading is seen as a solo affair in which the learner is hooked to its text and is not encouraged to read and dialogue with peers or in groups. The consequence of use of conventional method in teaching English language is that pupils are unable to retain their learning and apply it to a new situation (Abbas & Jafar, 2012). Abbas and Jafar asserted that cooperative learning strategies will help pupils become active learners in the classroom. They explained that cooperative learning is a teaching strategy in which small groups are formed, each with pupils of different levels of ability and using a variety of literature to improve their reading skills.

Cooperative learning according to Abbas and Jafar (2012), is an interactive process in a social setting that allows pupils to explore and work in groups, making meaning of tasks and setting out to solve problems that are perplexing to them. Pupils interact with each other on the grounds that with their peers, they are able to operate on equal footing. Also, they see that throughout the interaction, there is non-authoritarian exchange of ideas, and freedom to ask questions and express opinions as the interaction is more horizontal than vertical. According to Reiness as cited in

Oviawe (2010), cooperative learning among peers promotes learning outcomes, higher thinking skills, social interaction, experiences and context that make pupils willing and able to learn. Reiness further identified three distinct areas of cooperative learning among peers namely: Cross-Age Tutoring (CAT), Peer Tutoring (TP), and Reciprocal Peer Tutoring [RPT]. In this study, Reciprocal Peer Tutoring RPT will be discussed.

RPT method is a situation whereby the pupils reverse the roles of tutor and tutee in a reciprocal manner (Uroko 2010,). It allows each child to reap the benefit derived from preparing to teach another child. Children provide instruction, evaluation and reinforcement to one another, thereby creating mutual assistance and social support among themselves. RPT also has the tendency to build self-efficacy in a pupil who acts as a tutor and source of knowledge (Nwosu, 2012). The goal of RPT is to use discussion to enhance pupils reading comprehension, develop self-regulatory and monitoring skills and achieve overall improvement in motivation. However; it has been reported in research that reading skills acquisition can be influenced by certain factors such as gender.

Gender stresses the roles and responsibilities of males and females. Gender refers to one's subjective feelings of maleness or femaleness irrespective of one's sex (Ezeh, 2013). Ezeh further stated that gender is classified into masculine or feminine and is concerned with the attitudes that describe males and females in the socio-cultural context. The issue of gender on reading achievement of pupils have become an area of interest to researchers. Research studies show evidence of girls' superiority over boys in reading (Coley 2001, Umoh, 2001; Newkirt cited in Onuigbo, 2008). Some studies however, reported that boys achieved better (Uroko, 2010). Following these argument, it is pertinent to resolve this research finding controversy on gender, as it affects reading comprehension achievement.

In Anambra State, Nigeria, pupils who struggle with reading can be found in primary schools. This has become worrisome that parents often employ the services of home tutors to basically review what has been taught in school; perhaps the child might assimilate reading skills on a second teaching attempt. However, this does not appear to always solve the problem in which these children find themselves. It is thus expedient to try other methods that give the learner a more active role in the learning process, such as RPT in a collaborative environment. This is more so,

because pupils' involvement in lesson preparation and the self-confidence that emanate from the feeling of integration and recognition. The reciprocal interaction in peer tutoring, can help learners to meet one of the objectives of primary education in Nigeria which is the development of literacy and numeracy skills (Federal Republic of Nigeria 2013). It becomes necessary to examine the effect of this mode of instruction (RPT) on the reading achievement of pupils using comprehension passages in English Language.

Statement of the Problem

Reading for comprehension has been indicated to be very important in the life of any pupil. It is important in academic achievement as it helps pupils to construct meaning from texts as well as to examine and extend the meaning of the text. From observation and experience by researchers in Nigeria and Awka Metropolis in particular, the prevailing problem is that reading achievement of pupils have been declining steadily. Teachers, parents, curriculum experts and evaluators are worried, especially when the poor achievement has been blamed on inadequate reading comprehension skills.

It is believed that if the reading comprehension achievement of pupils in the primary school remains like this, it will affect the future academic achievement of these children and more so the economic and technological growth of the country. Poor reading achievement of primary school pupils can be attributed to the teaching approach (conventional teaching methods) adopted by teachers. This method in use is considered inadequate as it makes pupils remain passive learners. Although the problem of pupils' poor performance in reading achievement in primary schools do exist and thereby truncating societal need and primary education objectives, there is need for innovative and more effective instructional techniques like RPT. It is against this back drop that the study sets out to examine the effects of reciprocal peer tutoring (RPT) on primary school pupils' reading achievement in English language. The purpose of this study is to determine the effect of reciprocal peer tutoring on the reading achievement of primary school pupils in English language.

Research Questions

The following research questions guided the study:

1. What is the effect of reciprocal peer tutoring (RPT) on the reading achievement pre-test and post-test scores of primary five pupils in English language when compared with conventional teaching method?
2. What is the effect of RPT on reading achievement pre-test and post-test scores of male and female pupils in English language?
3. What is the effect of conventional method on reading achievement pre-test and post-test scores of male and female pupils in English language?

Hypotheses

The following null hypotheses were tested at 0.05 level of significance.

1. There will be no significant difference between the mean achievement pre-test and post-test scores of pupils taught reading using RPT and those taught with conventional method.
2. There will be no significant difference between the mean achievement pre-test and post-test scores of male and female pupils taught reading using RPT.

Method

The study was carried out to determine the effect of RPT method on the reading achievement of primary school pupils in Awka Metropolis. Three research questions and two hypotheses guided the study. A quasi – experimental design was used for the study. The population of the study comprised of 3419 primary schools pupils in Awka metropolis. A sample size of 65 pupils from 2 (two) schools randomly selected was used. The instrument for data collection in this study was Reading Achievement Test (RAT). Each unit was covered and lesson plan was also used as instructional tools. The reading achievement test was based on six weeks lesson plan. The RAT is a 30 items, four options multiple choice test compiled from six comprehension passage from Macmillan English Textbook for primary five. Primary five was used for the study because it is the onset for preparing pupils for external examinations and it is assumed to be fluent in reading comprehension. The RAT and the lesson plan were subjected to both face and content validation. Two experts in the Department of Early childhood and Primary Education and one expert in the Department of Educational Foundations (Measurement and Evaluation) all from Nnamdi Azikiwe

Univerity, Awka. To determine the reliability of the instrument RAT, the internal consistency of RAT was determined using the Kuder – Richardson formula 20 (KR–20). The coefficient of internal consistency was found to be 0.89. it was administered to the pupils (control and experimental group) as pre-test before they were taught for six weeks using validated lesson plans for RPT techniques and conventional method. At the end of the treatment, the items were reshuffled and administered to the subjects as post-test. The research questions were answered using statistical mean, while the null hypotheses were tested using Analysis of Covariance (ANCOVA). In this case, the pre test scores were used as covariante measures on the post test scores.

Results

Research Question 1: What are the effect of RPT and conventional method on the reading achievement of primary five pupils in English language?

Table 1: Mean and standard deviation for pre-test and Post-test Reading Achievement score of pupils taught with RPT and Conventional.

Reading Achievement							
Groups		Pretest		Post test		Gained	Decision
	No	Mean	Stand dev	Mean	Stand dev	Mean	
RPT	35	38.86	5.806	47.83	4.762	8.97	Effective
EM	30	34.07	8.733	35.40	11.069	1.33	

**RPT=reciprocal peer tutoring*
EM = Expository method

Table 1 showed the pre-test mean and post test scores of the pupils on reading achievement in the RPT and control groups. The pre-test mean scores of the RPT was higher than that of the control group. Also the post-test means scores treatment group was significantly higher with mean gain of 8.97 than that of the control group with mean gain of 1.33. This shows that RPT enhanced reading achievement in English language.

Research Question 2: What is the effect of RPT on reading achievement pretest and post test scores of male and female pupils in English language?

Table 2: Mean and standard deviation for Pre-test and Post-test Reading Achievement Scores of Male and Female Pupils Taught with RPT

Reading Achievement							
Groups		Pretest		Post test		Gained	Decision
	No	Mean	Stand dev	Mean	Stand dev	Mean	
Male	18	39.11	5.411	46.67	5.17	7.56	
Female	17	38.59	6.35	49.06	4.07	10.47	More effective

Table 2 shows the pre-test and post-test score mean and standard deviation of reading achievement scores of male and female pupils in the RPT. The pretest mean score of male pupils is 39.11 while their posttest mean score is 46.67. Their mean gain is 7.56. The pretest mean score of female pupils is 38.59 while their post mean score is 49.06. Their mean gain score is 10.47. This indicated that female pupils gained more in RPT than male pupils.

Research Question 3: What is the effect of conventional method on reading achievement Pre-test and Post-test of male and female pupils in English language?

Table 3: Pre-test and Post-test mean Reading Achievement Scores of Male and Female Pupils taught with expository Method

Groups		Pretest		Post test		Gained	Decision
	No	Mean	Stand dev	Mean	Stand dev	Mean	
Male	13	33.23	9.471	34.62	10.046	1.39	No difference in
Female	17	34.71	8.365	36.00	12.062	1.29	effective

Table 3 shows the pre-test and post-test mean and standard deviation of reading achievement scores of male and female pupils in the control group. The pre-test mean score of male pupils is 33.23 while their post-test mean score is 34.62. Their mean gain is 1.39. The pre-test mean score of female pupils is 34.71 while their post mean score is 36.00. Their mean gain score is 1.29. This indicated that male pupils gained more in control group than female pupils.

Hypothesis 1: There is no significant difference between the mean achievement pre-test and post-test scores of pupils taught reading using RPT and those taught with conventional method

Table 4: *ANCOVA* for Differences in Reading Achievement of Pupils

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.	Partial Eta Squared	Decision
Corrected Model	3816.442[a]	2	1908.221	39.397	.000	.560	
Intercept	854.085	1	854.085	17.633	.000	.221	
Prettest	1321.167	1	1321.167	27.277	.000	.306	
Group	1291.977	1	1291.977	26.674	.000	.301	Significant
Error	3003.004	62	48.436				
Total	121984.000	65					
Corrected Total	6819.446	64					

a. R Squared = .560 (Adjusted R Squared = .545)

Table 4 shows that there is a statistically significant difference between the mean achievement scores of pupil taught reading using RPT and those taught with expository method. This is because the p-value (.000) is less than the level of significant (0.05). Based on the above, the null hypothesis is rejected, implying that there is a statistically significant difference between the mean achievement scores of pupils taught reading using RPT and those taught with expository method.

Hypothesis 2: There is no significant difference between the mean achievement pre-test and post-test scores of male and female pupils taught reading using RPT

Table 5: ANCOVA for Differences in Reading Achievement of Male and Female Pupils Taught Reading with RPT.

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	
Corrected Model	139.593[a]	2	69.796	3.537	.041	.181	
Intercept	1015.119	1	1015.119	51.449	.000	.617	
Pretes experimental	89.563	1	89.563	4.539	.041	.124	
Gender experimental	56.220	1	56.220	2.849	.101	.082	Not significant
Error	631.379	32	19.731				
Total	80836.000	35					
Corrected Total	770.971	34					

a. R Squared = .181 (Adjusted R Squared = .130)

Table 5 shows that there is no significant effect of treatment in the posttest reading achievement of male and female pupils $F(1, 34) = 2.849$, $p > 0.05$. This means that there was no significant difference in the mean achievement scores of male and female pupils in the reading achievement taught with RPT. Therefore, the hypothesis that there is no significant mean difference in the reading achievement of male and female pupils taught with RPT is not rejected.

Discussion

The effectiveness of reciprocal peer tutoring was demonstrated through significant improvement in the reading achievement of pupils taught with it. The result of the data clearly shows that the experimental group who were taught with RPT achieved better than the control group who were taught with expository method. The analysis of hypothesis 1 using ANCOVA also shows a better reading achievement by the experiment group. This means that reciprocal peer tutoring seems to have contributed immensely to the improvement of pupils reading achievement. The result of the findings is in agreement with previous research findings of Uroko (2010), who

state that that reciprocal peer tutoring are beneficial to students, because they encourage students to read more, think deeply about books, listen carefully to classmates, share their responses and interpretations of texts, and often become lifelong readers. Also in line with the study Ofodu (2009), examined the effect of RPT on students' reading performance as well as their effects on students' levels of comprehension, performance levels and the gender of students showed that students learned, maintained and generalized more words. The author's report proved that RPT was the most effective method of teaching reading

There was no significant difference between the reading achievement of male and female pupils taught reading with reciprocal peer tutoring. This was shown from the result of the data that male and female pupils taught with RPT performed equally. The analysis of hypothesis 2 using ANCOVA as shown in table shows equal performance in the reading achievement of male and female pupils taught with RPT. This is in line with Igbo (2004) who maintain that instructional approaches neither favor or disfavor a particular sex in achievement. The findings of this study also agreed with Agiande (2006) that gender is not a significant factor in pupils' achievement. A well applied teaching strategy would produce the same effect on the pupils' achievement in reading English irrespective of sexes.

Conclusion

The findings from the study revealed the effects of reciprocal peer tutoring on pupils reading achievement in English language after they had been taught with the technique. In this regard, there was a significant difference in the mean achievement scores of pupils taught with RPT and those taught with conventional method. It was concluded that pupils taught with RPT achieved better than those taught with conventional.

Recommendations

Based on the findings of this study and taking into cognizance its educational implications, the following recommendations were made:

1. To enhance pupils reading achievement, new innovative instructional strategies as RPT should be adopted in the primary schools, especially in teaching English language. Also school authorities and educational administrators should ensure that RPT is integrated in our schools since it will help the pupils in becoming cooperative learners and problem solvers.

2. Teachers training colleges and universities should incorporate reciprocal peer tutoring in their curriculum so that prospective teachers will be acquainted with the basic skills of designing instructional materials for use and implementation of RPT in their respective classroom. Teachers should be well equipped and integrated with RPT for an effective teaching, mastery and its application in the teaching and learning processes.
3. School authorities and educational administrators should organize seminars, conferences and workshops for teachers to acquire skills for effective use of reciprocal peer tutoring in schools since it improve reading achievement.
4. Government should finance the use of RPT by sponsoring conferences and workshops for teachers and curriculum planners, so that curriculum planners can develop improved instructional materials that would meet up to the needs of the global society and encourage teachers to use them in their instructional activities.

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