



# EFFECTS OF RECIPROCAL PEER TUTORING ON READING COMPREHENSION ACHIEVEMENT AND SOCIAL INTERACTION OF PUPILS WITH EMOTIONAL BEHAVIOURAL DISORDERS IN NSUKKA EDUCATION AUTHORITY OF ENUGU STATE

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**Abstract:** This study sought to determine the effects of reciprocal peer tutoring (RPT) Learning strategy on reading comprehension achievement and social interaction of pupils with emotional behavioural disorders. Two research questions and two null hypotheses guided the study. The study adopted a quasi-experimental design. The population of the study comprises of 62 (30 males and 32 females identified (2016/2017 session) elementary five pupils with emotional behavioural disorders drawn from four public primary schools in Nsukka Local Government Education Authority using multistage sampling technique. The study adopted three research instruments namely: Emotional Behavioural Disorders Identification Scale (EBDIS), Test of Comprehension (TOC) Forms and Pupils' Social Interaction Scale (PSIS). The internal consistency reliability coefficients were determined using Cronbach Alpha Method and reliability indices of 0.68 and 0.76 were got for TOC forms, while PSIS yielded an overall reliability estimate of 0.77. Data collected were analyzed using mean scores and standard deviation to answer the research questions and t-test was used to test the null hypotheses using analysis of covariance (ANCOVA). The findings of the study revealed that intervention using reciprocal peer tutoring significantly improved reading comprehension achievement of pupils with Emotional Behavioural Disorders. The study also revealed that gender as a factor in the study has no significant influence on social interaction of pupils with Emotional Behavioural Disorders. Based on the findings of the study, it was thus recommended that emphasis should be given to equipping pupils with the relevant skills in using reciprocal peer tutoring.

**Keywords:** Conventional Teaching, Peer Tutoring, Reading Comprehension Achievement, Social Interaction, Emotional Behavioural Disorders

## I. INTRODUCTION

Learners' ability to comprehend what they read depends on their acquisition of reading skills. Reading skills, according to Colorado (2007), range from summarizing, sequencing, inference, drawing conclusion, self-questioning, problem solving, relating background knowledge, distinguishing between facts and operation, and finding main ideas. Reading comprehension helps pupils to construct meaning from texts, as well as to examine and extend the meaning of the text (Presley, 2006). Reading comprehension involves the process of encoding and processing information by relating incoming information to the already stored information or ideas (Colorado, 2007). It is an attempt at understanding a text that is read or the process of constructing meaning from a text. Difficulty in comprehending deprives readers the opportunity of understanding what the writer is trying to convey. It hinders the reader's ability to transfer knowledge, learn new skills or gain pleasure from text. Poor reading comprehension skill denies readers the chance of gathering information which helps them to function efficiently in the society they belong (Michael, 2006). Success in school requires that learners comprehend what they read. The ultimate goal of reading comprehension is to impact on the learner the ability to understand written passages and materials to evaluate them and use them for one's needs. However, evidence abound of poor achievement in subjects that require reading comprehension such as English language, Mathematics, Primary Science, Social Studies etc among most of primary school pupils in Nsukka Local Government Education Authority in particular (Ministry of Education, Enugu State, 2012-2016). For instance, a close analysis of the results of transition examination into Junior Secondary Schools in Nsukka Local Government, Education Authority for the years 2012, 2013, 2014, 2015 and 2016 shows that only 56%, 53%, 48%, 38% and 35% of the

pupils respectively passed well enough to be given admission into junior secondary schools (Common Entrance Result Examination Development Centre, Enugu State, 2012/2016).

Achievement is the outcome of education; that is the extent to which the pupil, teacher or institution has achieved their educational goals. Poor achievement is poor performance. The observed poor achievement of pupils in the transition examination was related to poor reading comprehension which was suspected to be linked with ineffective teaching. The ineffective teaching results from the continuous use of conventional teaching method by most teachers for instructional delivery; which decreases pupils' interest in learning and is responsible for learners' poor achievement (Akinbola, 2009). According to Oranu (2003), conventional teaching methods such as lecture and demonstration are regarded as content driven and certainly not learner centered.

Conventional teaching methods are teacher-centered and predominantly used for instructional delivery in Nigerian schools, including primary schools (Okon, 2002). Okon maintained that conventional teaching methods, relative to modern instructional techniques are not challenging enough to the academic needs of the learners. Therefore, Barnstein (2006) stated that modern instructional techniques are more effective and interactive, especially for any child at primary school level. This situation has continued to create concern in the minds of teachers, parents, curriculum experts and evaluators; especially because of the importance of primary education in the survival of the whole educational system and national development and when the poor achievement has been blamed on EBD. The Federal Republic of Nigeria (FRN, 2004) stipulated in the National Policy on Education (NPE) that primary education is referred to as the education given in an institution for children aged 6 to 11 plus. Primary school education is the foundation upon which all other levels of education are built. Primary school education is the bed-rock for the success of other levels of education (FRN, 2004). Primary education plays a crucial formative role in the survival of the whole educational system. A primary five child who was used as sample is a pupil in the first level of education where most Nigerian children come in contact with formal education.

A child is defined as a person who has not attained the age of eighteen (18) years. Child's Rights Act (2003) defined pupil as a person, usually young, who is learning under the close supervision of a teacher at school or a private tutor. A number of conferences and workshops have been organized with a view to addressing the problem of poor achievement of children in primary schools in subjects that require reading comprehension such as English language, Mathematics, Primary Science, Social Studies etc. As a result, a number of strategies have been recommended for teaching so that pupils can read and understand better. These include: Enquiry-discovery method (Ekpo, 2006) and use of information and communication technology (ICT) in the classroom (Olorundare, 2006). These recommended approaches seem quite interesting in their theoretical and practical orientation but evidence shows that the problems are still prevalent as could be seen from the Enugu State Ministry of Education's (2012-2016) transition examination results into junior secondary schools. The poor achievement becomes more worrisome when one considers the literature evidence that seems to suggest that the presence of academic deficits and relationship problems in social interaction could be as a result of emotional behavioral disorders (EBD) (Hallahan & Kauffman, 2006).

An emotional behavioral disorder is a behavioural problem which borders on emotional disability characterized by inability to build or maintain satisfactory interpersonal relationships with peers and/or teachers. Others characteristics are inability to learn which cannot be adequately explained by intellectual, sensory or health factors; consistent or chronic inappropriate type of behavior or feelings under normal conditions; displayed pervasive mood of unhappiness or depression; and displayed tendency to develop physical symptoms, pains or unreasonable fears associated with personal or school problems (IDEA, 2004). The focus of this study is on two aspects of these characteristics which are: inability to learn that cannot be explained by intellectual, sensory, or other factors and inability to build or maintain satisfactory interpersonal relationships with peers and teachers (U.S. Department of Education, 1999: 12). Emotional behavioural disorder could also be defined as an inability to learn or maintain satisfactory interpersonal relationship with teachers or peers which is not associated with intellectual or health but a disability of unhealthy mind. In fact, some think that people are identified as having this disability when adults in authority say so (Hallahan & Kauffman, 2006). In other words, in many cases the application of the definition is subjective. Definitions of this disability, including the one used in Individuals with Disabilities Education Act (IDEA) 2004, are based on the one developed by Hallahan & Kauffman (2006). The IDEA (2004) used the term emotional disturbance to describe pupils with emotional behavioral disorders which is the special education category under which pupils whose behavioral emotional responses are not typical served. Old versions of IDEA (2004) used the term serious emotional disturbance to describe this disability area, but 'serious' was dropped in 1999 when the U.S. Department of Education created the regulations for the 1997 version of IDEA. The U.S government did

not, however, change the substance of the definition when it changed the term. It was intended strictly to eliminate the pejorative connotation of the term 'serious' (U.S. Department of Education, 1999). In addition, some implied parts of the federal government definition are important to understand. For example, although only one characteristic listed in the IDEA 2004 definition needs be present for the student to qualify for special education. For the child to be described as being emotionally disturbed, the child's educational performance must be adversely affected. Since nearly every person experiences some mild maladjustment for short periods of his or her life, the definition also requires that the child exhibits the characteristic for a long time and to a marked degree, or significant level of intensity.

When discussing the problems of pupils with (EBD), the dimensions may include dangerous and disturbing characteristics such as aggression, disruptiveness, and defiance. These are generally considered most severe and pervasive (Gresham, 2000). As a result of the experience of the different abuses by the children serving as house helps, they may internalize more hostile view of the world, develop negative pattern of thoughts and negative self-talk: and these have negative implication for healthy engagement with others. They may fail to learn empathy which helps one to feel for others and serves s inhibiting factor for engaging in harmful behaviours towards others. They may develop poor sense of self which may lead to the recycling of their negativity about social interaction and about life in general. These children may also exhibit the two characteristics of U.S Department of Education definition, which are: (a) inability to learn not explained by intellectual, sensory, or other factors, and (b) inability to build or maintain satisfactory interpersonal relationship, which are of particular interest to this study. However, empirical studies (Galda and Cullinan, 2003) have found that elementary school pupils with EBD experience deficits in each of the five characteristics of the IDEA definition of Emotional Disorders. However, empirical studies (Cullinan, 2003) have found that elementary school pupils with EBD experience deficits in each of the five characteristics of the IDEA definition of Emotional Disorders. Evidence emanating from Western Europe tends to suggest that reciprocal peer tutoring (RPT) has the potential of improving the academic achievement and social interaction of pupils with emotional behavioural disorders (Ward & Ward, 2006). Not much evidence has been recorded in Nigeria. The academic achievement of a child could be defined as the learning outcome of the child. Academic achievement or (academic) performance is the outcome of education; that is the extent to which a pupil, teacher or institution has achieved their educational goals. Academic achievement is commonly measured by examinations or continuous assessment but there is no general agreement on how it is best tested or which aspects are most important; whether procedural skills or declarative knowledge such as facts (Ward & Ward, 2006). Social interaction includes those acts people perform towards each other and the response they give in return. It is the process by which people act and react to those around them. Having a quick conversation with a friend may seem trivial. However, Goffiman (2006) argued that the seemingly insignificant forms of social interaction should not be overlooked. Coleman discussed the link between social interactions among peers in school and academic outcomes and concluded that a child's peer group influences social and academic development. Pellegrini (2002) stated that the influence of social interaction on academic achievement of learners begins at the very early stage of formal education of the learners. Peer interactions should be organized to influence academic achievement and social interaction of the child.

Reciprocal peer tutoring (RPT) was defined by (Esteve, 2005) as a learning situation where pupils take turns acting as the tutors and the tutees for instruction or review of academic material. In this case, pupils exchange roles during tutoring session, both giving and receiving academic assistance while the teacher supervises rather than participates in the intervention. The pupils dialogue among themselves as each learner acts in response to another. The dialogue is usually structured by the use of four strategies, sometimes known as the Fabulous Four (Oczkus, 2003), which are predicting, clarifying, questioning and summarizing. The goal of reciprocal peer tutoring is to use discussion to enhance pupils' reading comprehension, develop self-regulatory and monitoring skills, and achieve overall improvement in motivation (Allen, 2003). Conventional teaching strategies on the other hand are the traditional teaching methods adopted by the classroom teachers in delivering their lessons such as lecture method, storytelling among others.

Reciprocal peer tutoring was developed by Pigott, Fantuzzo, Heggie and Clement (1984) and tested on children with academic needs. In RPT procedure, pupils are assembled in groups of two or more and are trained to work together to prompt, monitor and evaluate one another, while working toward group goals. The pupils alternate between the roles of tutor and tutee in groups. Pupils work together in the groups to achieve established goals or rewards that are contingent upon group achievement. RPT requires that the pupils earn points for correctly responding to academic task as each member of the group contributes to

the attainment of the goal, and ensures that no one person can be responsible for the group success (Esteve, 2005).

Though reciprocal peer tutoring has some research evidence in support of its potential effectiveness in some western countries (Esteve, 2005; Uroko, 2010), very few studies seem to be available here in Nigeria. Therefore, it is important that this strategy be tried out in Nsukka Local Government Education Authority to determine the extent of its effectiveness in improving the academic achievement and social interaction of pupils with emotional behavioural disorders.

In adopting reciprocal peer tutoring as an instructional strategy, the issue of gender on achievement and social interaction is another area that has been of interest to researchers. According to Ezeh (2013), gender refers to one's subjective feeling of 'maleness' and 'femaleness irrespective of one's sex. Gender was also defined by Eke and Anochie (2003) as a terminology that categorizes human beings into males or females. In the opinion of Connell & Messerschmidt (2005), gender is the self concept of male and female, especially when considered with reference to social and cultural differences based on the perceived biological differences between male and female. While some research studies showed evidence of girls' superiority over boys in reading comprehension achievement (Coley 2001 & Newkirt cited in Onuigbo, 2008). Some studies also indicated evidence of girls' superiority over boys in social interaction (Goffman, 2006 & Coleman 2001), while others reported no gender differences (Pellegrini, 2002). Following these inconsistencies, this work seeks to contribute in resolving the controversy on gender as it affects achievement and social interaction. The tacit assumption in Nsukka Local Government Education Authority is that males are superior to females in most things that count (Ugwu, 2009). Since reciprocal peer tutoring involves leading in turn, one wonders whether the socio-cultural influences that expose males to different problem solving situations and place females in a subordinate position would affect the achievement and social interaction of pupils with emotional behavioural disorders involved in the RPT. The report of American Psychiatric Association (2000) showed that many educators interpret the term Emotional Behavioural Disorders as disability with conduct disorders or those children who have been maladjusted to rules in their behaviours which result to poor learning and academic performance. Hence, the present poor performance of pupils in subjects that require reading comprehension and social interaction, which are suspected by researchers to result from Emotional Behavioural Disorders in most Nigerian public primary schools and Nsukka Local Government Education Authority in particular is worrisome and requires an effective instructional strategy such as reciprocal peer tutoring to increase academic achievement of the pupils and their social interactions to reverse the EBD of the affected ones.

### **1. 1. Statement of the Problem**

Reading comprehension has been known 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 examine and extend the meaning of the text. Yet the prevailing problem in Nsukka Local Government Education Authority of Enugu State, Nigeria is that the achievement of pupils in the transition into junior secondary school examinations has been declining steadily. Teachers, parents, curriculum experts and evaluators are worried, especially when the poor achievement has been blamed on emotional behavioural disorders. Evidence emanating from Western countries tends to suggest that reciprocal peer tutoring (RPT) has the potential for adjusting the emotional behaviour which could improve the reading comprehension achievement and social interaction of pupils. Few studies have been conducted in Nigeria. One wonders what effect RPT would have on the reading comprehension achievement and social interaction of Nigerian primary school pupils with emotional behavioural disorders. Therefore, the problem of this study put in a question form is: What would be the difference in the post test reading comprehension achievement and social interaction scores of primary five pupils with emotional behavioural disorders exposed to reciprocal peer tutoring and those taught using conventional teaching method.

### **1. 2. Purpose of the Study**

The general purpose of the study is to determine the effects of reciprocal peer tutoring on reading comprehension achievement and social interaction of primary school pupils with emotional behavioural disorders in Nsukka Local Government Education Authority of Enugu State, Nigeria. Specifically, this study sought to:

1. determine the difference in the post test mean social interaction scores of pupils with emotional behavioural disorders exposed to reciprocal peer tutoring (RPT) and those exposed to conventional teaching method.

2. find out the interaction effect of reciprocal peer tutoring (RPT) and gender on the post test mean social interaction scores of pupils with emotional behavioural disorders exposed to reciprocal peer tutoring (RTP) and those exposed to conventional teaching method.

### 1.3 Research Questions

The following research questions guided the study:

1. What is the difference in the post test mean social interaction scores of pupils with emotional behavioural disorders exposed to reciprocal peer tutoring (RPT) and those exposed to conventional teaching method?
2. What is the interaction effect of reciprocal peer tutoring (RPT) and gender on the post test mean social interaction scores of pupils with emotional behavioural disorders exposed to reciprocal peer tutoring (RPT) and those exposed to conventional teaching methods?

### 1.4 Hypotheses

The following hypotheses guided the study and were tested at 0.05 levels of significance:

**Ho<sub>1</sub>:** There is no significant difference in the mean social interaction scores of pupils with emotional behavioural disorders who exposed to reciprocal peer tutoring (RPT) and those taught using conventional teaching method.

**Ho<sub>2</sub>:** There is no significant interaction effect of RPT and gender on the post test reading comprehension achievement scores of pupils with emotional behavioural disorders exposed to reciprocal peer tutoring and those exposed to conventional teaching method.

## II. MATERIAL AND METHODS

The study adopted quasi-experimental design. The study was carried out in Nsukka Education Authority of Enugu State. The population of the study comprised all identified 97 2015/2016 elementary five pupils with emotional behavioural disorders in public primary schools in Nsukka Local Government Education Authority, 2013/2014 session. The sample for the study comprised all identified 2015/2016 elementary five pupils with emotional behavioural disorders from four public primary schools in Nsukka Education Authority, using multistage sampling techniques. The researchers developed 30-items comprises of two sections: Section A is the personal data of the pupils and instruction to the respondent, while Section B requires the class teachers/school counselors to identify the pupils with emotional behavioural disorders by stating how much they agree with the statements about their pupils. The emotional disorders identification items are based on a four (4) point rating scale of strongly agree (SA - 4), Agree (A - 3), Disagree (D - 2), and Strongly Disagree (SD - 1). The positive items will be reversely scored. Pupils who scored a grand mean of 2.50 and above would be considered emotionally disordered; while pupils who scored below 2.50 will not be considered emotionally disordered. The class teachers/school counselors are expected to give a tick to the most appropriate answer as exemplified in the box provided. To establish the face validity of the Emotional Disorder Identification Scale (EDIS), it was presented to three experts, one from Childhood Education Unit, one from Educational Psychology Unit and one Measurement and Evaluation Unit, from the University of Nigeria, Nsukka. The internal consistency reliability coefficient of the instrument was determined using Cronbach Alpha Methods. The instrument yielded a reliability estimate of 0.68 and 0.76 for TOC forms, while PSIS yielded an overall reliability estimate of 0.77. Data collected were analyzed using mean score and standard deviation, while Analysis of Covariance (ANCOVA) was used to test the hypotheses

## III. RESULTS

**Research Question One:** What is the difference in the post test mean social interaction scores of pupils with emotional behavioural disorders exposed to reciprocal peer tutoring (RPT) and those exposed to conventional teaching method?

**Table 1: Pretest-Posttest Mean Social Interaction Scores of Pupils with Emotional Behavioural Disorders Exposed to Reciprocal Peer Tutoring (RPT) and those Exposed to Conventional Teaching Method**

		Pre-Test	Post Test	Mean gain/Loss
Experimental	Mean	2.7	3.70	1.0

group	N	30	30	
	Std. Deviation	.4	.2	
Conventional method	Mean	2.5	2.7	0.2
	N	32	32	
	Std. Deviation	.2	.5	

Data in Table 1 show the mean social interaction scores and standard deviation of pupils with emotional behavioural disorders exposed to reciprocal peer tutoring (RPT) and those exposed to conventional teaching method. From the data, one can see that the pupils with emotional behavioural disorders in the experimental group exposed to reciprocal peer tutoring (RPT) had a pretest mean score of 2.3 and standard deviation of .4 in their social interaction scores; while their post-test test of social interaction scores was 3.7 with a standard deviation of .3 giving a mean pre-test/post-test gain score of 1.0. The pupils exposed to conventional method (control group) had a pretest social interaction score of .3 with a standard deviation of .27 while their post-test mean score was .3 with a standard deviation of .5 giving a pre-test/posttest mean gain score of 0.2. The experimental group that was exposed to reciprocal peer tutoring (RPT) had a higher mean social interaction post-test score than those in the control group indicating that reciprocal peer tutoring (RPT) improved the social interaction achievement of pupils with emotional behavioural disorders. The standard deviation of the experimental and control groups ranged from 0.2 to 0.5; indicating that the respondents are not too far from the mean and from one another in their responses adding further validity to the mean scores.

### Hypothesis 1:

There is no significant difference in the mean social interaction scores of pupils with emotional behavioural disorders who were exposed to reciprocal peer tutoring (RPT) and those taught using conventional teaching method.

**Table 2: Summary of the 2-Way Analysis of Covariance of Social Interaction Scores of Pupils with Emotional Behavioural Disorders Exposed to Reciprocal Peer Tutoring (RPT) and those Exposed to Conventional Teaching Method**

Source	Type III sum of squares	Df	Mean square	F	Sig
Corrected model	15.208 <sup>a</sup>	4	3.8	28.1	.000
Intercept	8.305	1	8.4	62.8	.000
Pre-Social Interaction	.002	1	.002	.016	.9
Treatment	13.496	1	13.5	102.2	.000
Gender	.345	1	.4	2.6	.1
Treatment*Gender	.011	1	.011	.1	.8
Error	7.533	57	.13		
Total	654.413	62			
Corrected Total	22.741	61			

a R squared = .669 (Adjusted R square = .645)

The data in the Table 2 show that reciprocal peer tutoring (RPT) strategy as a factor in the study has a significant effect on the social interaction scores of pupils with emotional behavioural disorders. This is because the calculated F-value of 102.115 in respect of the treatment as main effect has a probability value of .000 and therefore significant at .05 level of significance. This implies that exposing pupils with emotional behavioural disorders to reciprocal peer tutoring (RPT) significantly increased their social interaction. Therefore the null hypothesis of no significant difference in the mean social interaction scores of pupils with emotional behavioural disorders who were exposed to reciprocal peer tutoring (RPT) and those taught using conventional teaching method is rejected. Thus, there is significant difference in the mean social interaction scores of pupils with emotional behavioural disorders who were exposed to reciprocal peer tutoring (RPT) and those taught using conventional teaching method as measured by the social interaction scale.

### Research Question 2:

What is the interaction effect of RPT and gender on the post test mean social interaction scores of pupils with emotional behavioural disorders exposed to reciprocal peer tutoring (RPT) and those exposed to conventional teaching method?

**Table 3: Interaction Effect of Treatment and Gender on the Post Test Mean Social Interaction Scores of Pupils with Emotional Behavioural Disorders Exposed to Reciprocal Peer Tutoring (RPT) and those Exposed to Conventional Teaching Method**

Treatment groups	Gender of subjects	N	Post-test Mean	Standard deviation
Experimental Group	Males	15	3.8	.18.2
	Females	15	3.6	.27.3
	<b>Total</b>	<b>30</b>	<b>3.7</b>	<b>.24.3</b>
Control Group	Males	15	2.8	.49.5
	Females	17	2.7	.4
	<b>Total</b>	<b>32</b>	<b>2.7</b>	<b>.5</b>
Difference in Treatment and Control Group by Gender	Males		1.0	
	Females		1.1	

Data in Table 3 indicate that males in the experimental group who were exposed to reciprocal peer tutoring (RPT) learning strategy had a post-test mean social interaction score of 3.8 with standard deviation .2 in social interaction scale as against males in control group exposed to conventional method that had posttest mean social interaction score of 2.8 and standard deviation of .5; giving a male treatment/control group difference of 1.0. The females in the experimental group who were exposed to reciprocal peer tutoring (RPT) learning strategy had a post-test mean score of 3.6 with standard deviation .3 in social interaction scale as against females in control group exposed to conventional method that had posttest mean social interaction scale score of 2.7 and standard deviation of .4. This gives a female treatment/control group difference of 1.1. The males had a higher treatment/control group difference of 0.05 than their female counterparts. The results however indicate that males and females in the treatment group who were exposed to reciprocal peer tutoring (RPT) learning strategy performed highly better than males and females in the control group.

### Hypothesis 2:

There is no significant interaction effect of RPT and gender on social interaction of pupils with emotional behavioural disorders as measured by their mean scores in Social Interaction Rating Scale.

Data on Table 2 revealed that there is no significant interaction effect of RPT and gender on social interaction of pupils with emotional behavioural disorders as measured by their mean scores in Social Interaction Rating Scale. This is indicated by the F-value of .9 which has a probability value of .8 and therefore not significant at 0.05 levels. Therefore, the null hypothesis of no significant interaction effect of RPT and gender on social interaction of pupils with emotional behavioural disorders as measured by their mean scores in Social Interaction Rating Scale is not rejected. Consequently, there is no significant interaction effect of RPT and gender on social interaction of pupils with emotional behavioural disorders as measured by their mean scores in Social Interaction Rating Scale.

## IV. DISCUSSION

The finding of this study revealed that intervention using reciprocal peer tutoring (RPT) learning strategy significantly improved the social interaction of pupils with emotional behavioural disorders. This agrees with earlier findings of Bower (2003) which compared variables including academic achievement and aptitude, social adjustment, and relationships with peers as perceived by the students themselves, their teachers, and their classmates. The findings of the study indicated significant relationship between reciprocal peer tutoring and academic achievement, aptitude, social adjustment, and relationships with peers.

The finding of this study slightly agrees with the findings of two studies by Sabornie (1997) which employed socio-metric measures to determine how elementary-age students felt about each other. In the second socio-metric study, Farmer and Hollowell (1994) used a researcher-made instrument to compare peer-assessed behavioural characteristics for mainstreamed boys with EBD (n = 18) and their non-

disabled peers (n = 107). The improvement of pupils with emotional behavioural disorders (EBD) in social interaction could be attributed to their exposure to reciprocal peer tutoring (RPT) treatment. There were no significant differences on these three items between boys with EBD and their peers without EBD.

The study revealed that there was no significant interaction effect of treatment using reciprocal peer tutoring (RPT) learning strategy and gender on social interaction of pupils with emotional behavioural disorders as measured by the PSIRS. This implies that the improvement in social interaction of pupils with emotional behavioural disorders was caused by the intervention using reciprocal peer tutoring (RPT) learning strategy and not other factors. This agrees with the findings of Ezeahurukwe (2010) which reported no significant interaction effect of gender and Elaborative interrogation on students' self-efficacy. The lack of significant gender difference in the social interaction of the pupils in the present study could be as a result the active involvement of the pupils in the reciprocal peer tutoring process without gender discrimination.

## V. CONCLUSION

Based on the findings of the study, the following conclusions are made. The use of reciprocal peer tutoring (RPT) can improved reading comprehension achievement and social interaction of pupils with emotional behavioural disorders. This is evident in the fact that pupils taught reading comprehension using reciprocal peer tutoring (RPT) learning strategy performed significantly better and improved in their social interaction more than those taught reading comprehension using conventional method. This conclusion is based on the findings of this study which revealed a significant difference in reading comprehension achievement and social interaction scores of pupils with emotional behavioural disorders exposed to reciprocal peer tutoring learning strategy during instruction and those exposed to conventional method. Gender was found to have no significant influence on the reading comprehension achievement and social interaction of pupils with emotional behavioural disorders that were exposed to reciprocal peer tutoring (RPT) learning strategy. So conclusion was made the male and female pupils with emotional behavioural disorders exposed to equal environment of gender free discrimination benefited uniformly. It was also found that there was no significant interaction effect of treatment using reciprocal peer tutoring (RPT) learning strategy and gender on the reading comprehension achievement and social interaction scores of pupils with emotional behavioural disorders. Conclusion was made therefore, that reading comprehension achievement and social interaction of pupils with emotional behavioural disorders was effective in bridging the perceived gender difference in reading comprehension achievement and social interaction of pupils with emotional behavioural disorders in Nsukka Local Government Education Authority of Enugu State.

## VI. RECOMMENDATIONS

Based on the findings of this study, the following recommendations were made.

1. Pupils should be exposed to reciprocal peer tutoring (RPT) learning strategy during instruction, so that they will understand their place in teaching-learning process; and in such a way take up the responsibility of learning. In order to achieve this, teachers should explain, demonstrate and model this strategy to the students; monitor the students' use of the strategy and provide them with immediate feedback and reinforcement.
2. The reciprocal peer tutoring (RPT) learning strategy should be incorporated into teacher education curriculum/programmes to prepare the prospective teachers with the skills of the strategy.
3. Stakeholders in education; the federal and state government, education management boards and schools administrators should organize in-service training, workshops and seminars for both the teachers and students on the effective use of the strategy.

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## REFERENCES

1. Akinbola, A. O. (2009). Enhancing students' attitude towards Nigeria secondary school physics through the use of cooperative and individualistic learning strategies. *Australian Journal of Teachers Education*, 34(1), 1-9. Retrieved from: <http://dx.doi.org/10.14221/ajte.2009v34n1.1>
2. American Psychiatric Association (APA, 2000). The 4th edition of the *Diagnostic and Statistical Manual, Urban Education Journal*, 76, 64-99
3. Bernstein, K. A, Granneman, S, Lee, A.V., Manickam, S. & Baserga, S. J. (2006) Comprehensive mutational analysis of yeast DEXD/H box RNA helicases involved in large ribosomal subunit biogenesis. *Mol Cell Biology*, 26(4), 1195-208
4. Bower, K. (2003). Behavioral and emotional problems of deaf children: An overview. International Journal Bradford & W. G. Hardy (Eds.), *Hearing and hearing impairment* (pp. 395-415). New York: Grune & Stratton.
5. Child's Rights Act (2003). *Government of Nigeria*: 451–673.
6. Colorado, S. (2007). Reading comprehension strategy instruction. *Current Practice Alerts* 12, 1-4.
7. Coleman, J. (2001). *Social climates in high schools*. Washington, D.C.: U.S. Government Printing Press.
8. Coley, R. (2001). Differences in gender gap: Comparisons across racial/ethnic groups in *Education and Work. (Policy Information Report)*. Princeton, N. J: Educational Testing Service
9. Connell, R., & Messerschmidt, J. (2005). Hegemonic Masculinity: Rethinking the Concept. *Gender and Society*, 19(6), 829-859. Retrieved from <http://www.jstor.org/stable/27640853>
10. Galda, L., & Cullinan, B. E. (2003). Literature for literacy: What research says about the benefits of using trade books in the classroom. In J. Flood, J. Jensen, D. Lapp, & J. Squire (Eds.), *Handbook of research on teaching the English language arts* (2nd ed., pp. 640-648). New York: Macmillan Publishing Company
11. Individuals with Disabilities Education Act (IDEA, 2004). IDEA's Purposes. Retrieved from: <https://www.parentcenterhub.org/qa1/>
12. Eke, F.U. & Anochie, I (2003). Effects of pyrimethamine versus proguanil in malaria chemoprophylaxis in children with sickle cell disease: a randomized, placebo-controlled, open-label study. *Current Therapeutic Research*, 64(8), 616-25.
13. Ekpo, J. (2006). TIPS on teaching difficult concepts in senior secondary school chemistry. In D.N. Eze (Eds) *Review of Education* 17 (1), 1 – 8.
14. Esteve, B. M. (2005). Reciprocal peer tutoring and treatment integrity of elementary school students. An M. A Thesis Louisiana State University. Retrieved from: <http://etd.isu.edu/docs/available/etd-11142005-151539/unrestricted/Estevethesis.pdf>.
15. Ezeahurukwe, J.N. (2010). *Effects of elaborative interrogation and self questioning on mathematics achievement and self-efficacy of low achieving students*. Ph.D Thesis, University of Nigeria, Nsukka.
16. Ezeh, D. N. (2013). *Science without women: A Paradox 75<sup>th</sup> Inaugural lecture of the University of Nigeria*, Nsukka. University Press Ltd.
17. Federal Republic of Nigeria. (2004). *National policy on education*. Lagos: Federal Government Press.
18. Farmer, T. W., & Hollowell, J. L. (1994). Social networks in mainstream classrooms: Social affiliations and behavioral characteristics of students with emotional and behavioral disorders. *Journal of Emotional and Behavioral Disorders*, 2, 143–155

19. Goffman, E. (2006). Social interactions: Definition, types and quiz. *European Journal of Psychology in Education* 14, 23 – 40.
20. Gresham, G. (2000). *Parents' involvement in children's schooling; A multidimensional conceptualization and motivational model. Child Development*, 65, 237-240.
21. Hallahan, D. & Hallahan, E. (2006). *Emotional or behavioral disorders defined*. Pearson Allyn: Bacon Prentice Hall
22. Michael, W.T. (2006). Reciprocal peer tutoring: An embedded assessment technique to improve students' learning achievement. *A paper presented at the annual meeting of the American Education Research Association*.
23. Olorundare, S. (2006). Utilization of Information and communication technology (ICT) in curriculum development implementation and evaluation. In D. N. Eze and N. Onyegegbu (Eds) *Information communication technology in the service of education* (pp. 11 – 33) Enugu: TIMEX.
24. Okon, E. J. (2002). "Women and the Niger Delta struggle," in R. Aduche Wokocha, *Development right issues in the Niger Delta*, Schaleworths Centre for Democracy and Development, pp. 66-73.
25. Onuigbo, L. N. (2008). *Effects of elaborative rehearsal and self-questioning strategies on reading comprehension of students with visual impairment*. Unpublished Ph.D Thesis, University of Nigeria, Nsukka.
26. Pellegrini, A. (2002). Kindergarten children's social-cognitive status as a predictor of first-grade success, *Early Childhood Research Quarterly*, 7(3), 565-577.
27. Pigott, R; Fantuzzo, J. W., Heggie, N. H. & Clement, K. (1984). Effects of reciprocal peer tutoring on children with academic needs. *Journal of Social Psychology* 18, 203 – 223.
28. Presley, M. (2006). Reading instruction that works. The case for balanced instruction. New York: The Guilford Press. Retrieved April 29, 2016 from <http://en.wikipedi.org/wikip/Readingcomprehension>.
29. Saborine, J. (1997). Social acceptance and rejection among physical education students with and without EBD. *The Journal & Education Research*, 69(6), 161-274.
30. United State Department of Education, (1999). *Individuals with disability education act definition of emotional disturbance (ED) as an education disability*. Washington, D.C.: U.S. Government Printing Office,
31. Ugwu, D. S. (2009). Socio-economic impact of HIV/AIDS on farm women in Nigeria: Evidence from Enugu State. *World Applied Sciences Journal*, 6 (12), 1617-1624.
32. Uroko, J.E. (2010). *Effect of reciprocal peer tutoring on achievement, interest and perceived self efficacy in reading comprehension among senior secondary school students in Enugu State*. Unpublished Ph.D Thesis, University of Nigeria, Nsukka.
33. Ward, A. H. & Ward, M. (2006). "Achievement and ability tests: Definition of the domain". *Educational Measurement* 2, University Press of America, pp. 2–5.