

Gender differences and reflective teaching on reading comprehension  
Achievement among students with emotional behavioral disorder:  
Implications for sustainable development

By

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Abstract

**Background:** The 2012 United Nations Conference on Sustainable Development (RIO+20) developed a set of Sustainable Development Goals (SDGs). Goals four and sixteen which are to ensure inclusive and equitable quality education and promote lifelong learning opportunities for all and provide peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels respectively. In line with this, the philosophy of Nigeria education according to Federal Republic of Nigeria in the National Policy on Education (FRN, 2014 revised) is based on the development of the individual into a sound and effective citizen. Students with emotional behavioral disorder (EBD) with reading problems may be disadvantaged. The study set out to find out how this problem can be reduced. Students' rate of learning and comprehension can vary significantly in their environments from those of their peers, ethnic, gender and cultural groups. This may stem from the content matter to be learnt, physical, psychological and cognitive characteristics of the learner and above all, the method of teaching. Reflective teaching was used on reading comprehension achievement of students with emotional behavioral disorder in Nsukka Local Government area of Enugu State, Nigeria. Particular attention was paid to gender differences among students with emotional behavioral disorder.

**Methods:** Two research questions and two null hypotheses guided the study. The population of the study was 152 junior secondary school (JSS) III students identified with emotional behavioral disorder. A sample of 35 of the students from four co-educational schools was used for the study. Reading Comprehension Achievement Test was used to collect data. The instrument was face validated by three experts, from University of Nigeria Nsukka. Content validation of the instrument was ensured through the use of test blue print. A reliability index of 0.86 was obtained using Pearson's product moment correlation. Data collected were analyzed using mean, standard deviation and analysis of covariance (ANCOVA).

**Results:** The findings of the study showed that students who were exposed to structured intervention (reflective teaching) achieved higher than their counterparts exposed to unstructured intervention. Female students achieved higher than their male counterparts. Also, male and female students who were exposed to reflective teaching had higher post-test mean on reading comprehension achievement scores than the

male and female students of the control group. **Conclusions:** Based on the findings, the researchers concluded that use of reflective teaching be used by teachers for enhancing reading comprehension irrespective of gender differences. Their potentials when properly tapped will be geared to sustainable development of the nation.

**Key words: Gender, reflective teaching, emotional behavioral disorder, sustainable development.**

**Sub theme 13:** Breaking down Silos in universities. Imaginative interdisciplinary approaches to sustainable development research, education and practice.

## 1. Background

Students with special needs often experience challenges at school which may be as a result of increasing level of difficulty of the school work. Such silo needs to be broken. Those of them with emotional behavioral disorder may be frustrated as a result of regular reading demanded in any academic pursuit. The nature of their need may not allow them to sit down and read. Inclusive education being advocated currently in schools may increase their difficulty and subsequent frustration. Inclusion involves interdisciplinary approach to address the problem. It is team synergy.

Some educators question whether students with emotional behavioral disorder should attend public schools (Landrum & Kauffman, 1992; Hassan, 2013). Teachers believe that they should not be fully included in the general classrooms due to their behavior and special instructional needs. Gargiulo (2003) corroborates this view by stating that though students with emotional behavioral disorder (EBD) are in public schools, 55% leave school without graduation, amounting to the highest dropout rate of all categories of students with special needs. Douglas (2010) opined that often, a regular reading program at school will not bridge the learning gap by itself, but require direct, one-on-one instruction from reading experts and other creative tools employed to motivate and support struggling readers. The issue is not gender discriminatory.

According to Keller (1991), gender is one of the variables which influence the academic achievement of students with emotional behavioral disorder in both primary and secondary schools. It affects teaching and learning based on the fact that the method of instruction used may not be received in the same way by both. It may affect performance on achievement tests.

In a study by Were, Indoshi, and Yalo (2010) on self-concept and performance in achievement tests, it was revealed that girls tended to show a higher self-concept which influenced their performance in achievement tests than their male counterparts among pupils with visual impairment. Results from this study provide evidence that there is a relationship between self-concept and achievement. The authors equally reported that among pupils with visual

impairment, girls generally have a higher self-concept than boys and consequently, higher academic achievement. Students with emotional behavioral disorder tend to have low self concept which may be as a result of under achievement. Studies carried out in United Kingdom by Elwood and Carlisle (2004) showed that females consistently outperform males in all aspects of English Language. In Nigeria, Opara (2003), and Uzoegwu (2004) observed that males performed better than females in language while Offorma (2004) pointed out that females performed better than males in language. The researchers noted that males and females adapt differently to different teaching methods, strategies and approaches. There may be more problems when teaching and learning occurs in inclusive setting.

Placing students into inclusion programs when they are disruptive according to Chow, (1999) can hinder their education and that of other classmates. This, Nelson, (2004) opined, may be based on the fact that teachers in the regular classroom use conventional method of teaching such as lecture method on students with emotional behavioral disorder which is not suitable for them. This is because their behavior contributes over 50% of their academic deficit.

Students with emotional behavioral disorder place a high demand on teachers to acquire special skills in dealing with this disability in the classroom (Heflin & Bullock, 1999). The lack of training, safety concerns, and behavioral problems often lead to resistance and negativity from educators with the responsibility to include students with emotional behavioral disorder. In addition, teacher's attitudes can affect the quality of education provided to students with emotional behavioral disorder, who are considered the most difficult disability group to include in the classroom (Walker & Bullis, 1991; Yell, 1995).

Emotional behavioral disorder can be a deviation from age-appropriate behavior which significantly interferes with the life and development of a child and those of other children (Knitzer, 1998). Nigerian ethnic groups describe such children in different ways. For example, two words are used by the Igbo to describe such a child, "ajọ nwa" a bad child. The child's behavior is not acceptable to parents and those around him. For the Yoruba, another ethnic group in Nigeria, such apt definition is "omo buruku". The Hausa, another major ethnic group, see such a child as "yaro ba charwo" (Obiyo, 2006). In terms of specific areas of academic functioning, students with emotional behavioral disorder exhibit broad deficits, including: under achievement in reading, reading comprehension, vocabulary, and written language (Anderson, 2001; Nelson, 2004; Lane, 2006).

Students with emotional behavioral disorder often have significant challenges learning to read, resulting in delays that can affect other academic, emotional, and behavioral difficulties that are often pervasive throughout their lifespan (Wehby, Falk, Barton-Arwood, Lane & Cooley, 2003). Reading is like opening the door of understanding to somebody's past, where it can serve as a looking glass for the present (Ugwuanyi & Onu, 2011). Reading also stimulates the development of brain cells, reinforces language skills, enhances organizational abilities, improves one's temperament and poise, and provides strength to endure frustration. Reading comprehension is a complex interaction among automatic and strategic cognitive processes that enables the reader to create a mental representation of the text (Van Den Broek & Espin, 2012). Comprehension is the essence of reading and the active process of constructing meaning from text (Durkin, 1993). As readers mature in their comprehension skills, they are able to progress efficiently from the stage of learning to read to the ultimate goal of reading to learn (Yovanoff, Duesbery, Alonzo, & Tindal, 2005). Comprehension becomes especially important to students in the later elementary grades (Sweet & Snow, 2003) because it provides the foundation for further learning in secondary school. A student's academic progress is profoundly shaped by the ability to understand what is read. Reading is the fastest and simplest way to raise people's educational level (Hung & Tzeng, 2001).

Intervention for students with emotional behavioral disorder places a high demand on teachers to acquire special skills in dealing with reading difficulties in the classroom (Heflin & Bullock, 1999). Reading difficulties and behavior problems often are linked, but the causal or correlative nature of this relationship is unclear (Wehby, Falk, Barton-Arwood, Lane & Cooley, 2003). Teachers frequently have to

intervene both academically and behaviorally to help students with emotional behavioral disorder learn to read. When considering the approach to take with a student, it is necessary to understand the student's past achievement and ability in reading classes, history of behavioral control, oppositional behavior, and emotional regulation. Understanding the wide range of features of students with emotional behavioral disorder is an important step toward the development of effective intervention and appropriate assessment because no one learning strategy is effective for every student. As an example, when a student refuses to participate in a classroom reading exercise, it may be an indicator of lack of necessary skills because he missed classes or has limited English proficiency. On the other hand, he may have encountered a difficult situation earlier in the day that had interfered with classroom concentration. The student may simply refuse to participate out of disinterest in the exercise. It is often difficult for teachers to know whether to target instruction, behavior, or other factors (Jorm, Share, Matthews, & MacLean, 1986; Kauffman, Cullinan & Epstein, 1987). In addition to having specific processing deficits, these students usually must compensate for general lack of attention, high distractibility, or learning environments with too little task structure or direct instruction (Maughan, Pickles, Hagell, Rutter & Yule, 1996; Wehby, Falk, Barton-Arwood, Lane & Cooley, 2003).

Lack of training, safety concerns, and behavioral challenges however, often lead to resistance and negativity from educators who teach in inclusive classrooms. Besides, teacher's attitudes can affect the quality of education provided to students with emotional behavioral disorder, who are considered the most difficult disability group to include in the classroom (Walker & Bullis, 1991; Yell, 1995). In spite of these teacher challenges, reading comprehension of students can be enhanced through reflective teaching.

Reflective teaching is looking at what one does in the classroom, thinking about why one does it, and thinking if it works. When teachers collect information about what goes on in the classroom and analyze and evaluate such information, they identify and explore their practices and underlying beliefs. This may lead to changes and an improvement in one's teaching. It is a means of professional development which begins in the classroom (Jasper, 2005). In other words, it helps one to explore theories and to apply them to one's experiences in a more structured way. These can either be formal theories from academic research, or one's personal ideas. It also encourages one to explore one's beliefs and assumptions and find solutions to problems (Marbina, Church & Tayler, 2010).

Reflective teaching involves identifying a problem, asking questions about the problem to induce the learner to clearly reflect on his past personal experiences based on the subject matter. Research has found reflective teaching behaviors to include: reviewing and checking the previous day's work, re-teaching if necessary, promoting initial student practice of new content and skills, checking for understanding; providing corrective feedback; giving students an opportunity for independent practice; and conducting weekly and monthly reviews of progress (Hammond & Ingalls, 2003). Reflective teaching blends learning, inquiry and critical thinking skills, questioning skills, discussion, use of concept maps and collaborative learning in order to promote effective teaching and learning. It is learner-centered as it engages learners' in series of questions and thinking processes that make learners construct knowledge within and among themselves without necessarily relying on the teacher for everything (Garrison & Archer, 2000).

Study carried out by Richards and Lockhart (1994) added a critical component by stating that a reflective approach to teaching is one in which teachers and student teachers collect data about teaching, examine their attitudes, beliefs, assumptions and teaching practices, and use the information obtained as a basis for critical reflection about teaching. They emphasized that such a critical reflection of one's practices can trigger a deeper understanding of teaching, and contribute to one's professional development. It is through repeated cycles of professional development, practice and reflection Wallace

(1996) claims that professional competence arises. This in turn will be useful to the teacher in handling learners who have special needs for sustainable development.

A reflective approach to teaching involves changes in the way teachers usually perceive teaching and their role in the process of teaching. Teachers who explore their own teaching through critical reflection develop changes in attitudes and awareness which they believe can benefit their professional growth as teachers, as well as improve the kind of support they provide their students.

Based on the information the researchers collected from English teachers, out of the 3 students with emotional behavioral disorder in junior secondary school II (JSS 11) in Community Secondary School Alor-Uno, Enugu State, Nigeria, none of them passed reading comprehension in 2014/2015 academic session. Equally at Community Secondary School Ibagwa-Ani, still in Enugu State, Nigeria, out of the 4 students with emotional behavioral disorder in JSS II only one passed reading comprehension at pass level. These students performed better in other subjects outside reading comprehension, hence the interest of the researchers in this area of study.

Empirical studies by Atikpui (2008) on reading questioning and direct instruction strategies in enhancing comprehension skills of students with emotional behavioral disorder in Oyo township, Oyo State, Nigeria, showed that there was significant difference between the pre-test and post test scores of the group which received direct instruction ( $f=8.70$ ,  $P<.001$ ). It was discovered that there was no significant difference between the male and female scores in the pre and post test scores in comprehension skill ( $f=3.04$ ,  $df(1)$ :  $P(0.96>.05)$ ).

Dele-Ojuawo (2008) investigated the application of peer-tutoring approach in the enhancement of reading comprehension ability of students with emotional behavioral disorder in selected schools in Ibadan, Nigeria. Findings of the study revealed that peer tutoring is effective in enhancing the reading rate and reading fluency of students with emotional behavioral disorder ( $f(1, 15) = 6.645$ ,  $p<.05$ ). It further showed that there is a significant gender difference in the effect of the treatment on the participants ( $f=1, 15$ )  $6.559$ ,  $p<0.5$ ).

Suchnowski (2001) carried out a longitudinal study comparing academic achievement of students with emotional behavioral disorder to that of learning disabilities (LD) in one school district in Southeastern United States of America. The result show that after 5 years of receiving special education services only LD group made significant progress in reading even though their scores had been substantially lower than those of the students with emotional behavioral disorder.

Oludepe (2012) did a study on gender difference in Nigeria Junior Secondary school academic achievement in Mathematics of students with emotional behavioral disorder using cooperative learning teaching strategy. Findings of this study revealed that there was no significant difference in academic achievement of male and female students at the pre-test, post-test, and delayed post-test levels respectively.

Alokan (2010) investigated the relationship between male and female students' problems and academic achievement among rural and urban students in Akure North and Akure South Local Government Areas. The result of the analysis showed that there was a significant negative relationship between students' problems and academic achievement among male, female, rural and urban students

John (1997) investigated the effects of an innovative approach to Mathematics on academically low achievement students with emotional behavioral disorder in mainstreamed settings in Edo state. The study lasted for 1 year. The result of the findings indicated no significant different in the academic achievement of students from both schools. Students in both schools showed modest improvement.

Ayafou (2012) carried out a study on the effect of reflective teaching on the academic achievement of students with learning disabilities in basic science of Ekeremor education Zone, Rivers State, Nigeria. The result of the study shows that, educating students with learning disabilities require a departure from the conventional method of teaching to include other strategies such as reflective teaching in order to make them learn.

Anyima (2011) studied on the effect of reflective inquiry instructional technique on students' achievement in government senior secondary schools in Delta state, Nigeria. The finding revealed that reflective technique had a high positive effect on students' performance.

Theoretically, this study is anchored on Gagne's (1965) theory of learning. This theory stipulates that there are several types or levels of learning. These are: verbal information, intellectual skills, cognitive strategies, motor skills and attitudes. The significance of these classifications is that each type requires different types of instruction. Different internal and external conditions are necessary for each type of learning. Gagne suggests that learning tasks for intellectual skills can be organized in a hierarchy according to complexity: stimulus recognition, response, generation concept formation, rule application and problem solving. The primary significance of the hierarchy is to identify prerequisites that should be completed to facilitate learning at each level. Prerequisites are identified by doing task analysis of learning/training task. Learning hierarchies provide a basis for the sequencing of instruction.

Gagne proposed four stages of learning sequence: apprehension, acquisition, storage and retrieval. This shows that information is first received and acquired before storage which precedes retrieval.

This theory is related to this work since it is built on the fact that different types of learning require different types of instruction, which is the mainstay of reflective teaching strategy. Reflective teaching employs different kinds of internal and external conditions to make learners learn.

This study was guided by 2 research questions and 2 hypotheses. They addressed the effect of gender on reading comprehension achievement of students with emotional behavioral disorder and the interaction effect of method and gender on reading comprehension achievement of such students.

The study adopted quasi-experimental research design. Experimental and control groups were used. According to Nworgu (2006) the two groups were non-equivalent. The experimental group received treatment while the control group did not receive treatment.

E:  $O_1$  X  $O_2$   
C:  $O_1$  ~X  $O_2$

Where

E = experimental group

C = control group

$O_1$  = pre-test

$O_2$  = post-test

X = treatment (reflective teaching)

~X = No treatment (conventional method)

## **2 Method**

### **2.1. Participants**

The population comprised 152 JSS III secondary school students identified with emotional behavioral disorder in all the public junior secondary schools in Nsukka Local Government Area (PPSMB Nsukka L.G.A 2015/2016 Academic Section. There are 23 co-educational schools and 7 single-sex schools in Nsukka LGA.

The sample was 35 JSS III students identified with emotional behavioral disorder from four public secondary schools in Nsukka local government area after the researchers' assessment of all the

JSSIII students. With the permission of the principals of the schools, the form teachers of JSS III students in the four schools were approached to supply the researchers with information regarding the number of students with emotional behavioral disorder in their classes. Through them 35 students with EBD were identified. This comprises 15 male and 20 female students. Multi-stage sampling technique was used. First, purposive sampling technique was used to draw the 23 co-educational schools from the 30 junior public secondary schools in Nsukka LGA. Then 4 co-educational schools were drawn from the 23 co-educational schools through simple random sampling technique. An intact class was used for the study such that all the students could benefit from the lessons.

Two separate schools each were randomly chosen in which one served as control group while the other served as experimental group. A sample of 8 males and 12 females was for the experimental groups, while the control group was made up of 7 male and 8 female students.

The identified students with emotional behavioral disorder were administered with a test on reading comprehension before separating them into experimental and control groups. Then reflective teaching was applied for the experimental group. After the reflective teaching, a post test was administered to both groups to know whether there is any change in performance. The effect of the treatment was determined by the post-test mean score differences between the experimental (reflective teaching strategy) and the control groups (conventional method). The influence of gender on the academic achievement of students was determined by the difference in the sum total of post-test mean scores between the male and female students.

## *2.2 Measures*

The instrument was a standardized test of Basic Education Certificate Examination (JSS Upper Basic 3) titled “Reading Comprehension Achievement Test” (RCAT). It has two sections, A and B. Section A sought information on the demographic data of the students while section B, consisted of ten items on reading comprehension. The instrument (RCAT) was validated by experts in Special Education and Measurement and Evaluation ALL IN Faculty of education, University of Nigeria, Nsukka who were requested to vet the instrument in terms of clarity of language, relevance to the research purpose and comprehensiveness in achieving the purpose of the study. The validated instrument consisting of ten items on reading comprehension was trial tested using test-retest method on 20 (10 male and 10 female) students with emotional behavioral disorder in Igbo-Eze South Local Government Area of Enugu state to determine the internal consistency estimate. The answer scripts were marked by the researchers and scores were kept. After two weeks, the RCAT was re-administered to the same sample. The scores of the test and re-test were correlated. The index of temporary stability of RCAT was found to be 0.86 using Person Product Moment Correlation. This indicated that the instrument was reliable. It served as pre-test and post-test to the control and experimental groups. The pre-test was given to them to test their performance before giving them a post-test after lessons to determine if there was change in their performances. There were also lessons on reading comprehension for 4 weeks, on four topics selected from the first term scheme of work for JSS III. The lessons were for both the experimental and control groups with the use of reflective and conventional teaching methods respectively. Research assistants taught the identified students with emotional behavioral disorder.

## *2.3 Procedures*

The researchers trained four research assistants on how to administer the instrument to the selected students with emotional behavioral disorder. The research assistants were the form masters of the classes used.

The test was administered to those students who are identified as students with emotional behavioral disorder by the form masters and through school academic records as pretest. After the two weeks of treatment for the experimental groups the test was reshuffled and re-administered both to the experimental and control groups as post-test. The researchers monitored the exercise and then collected the entire answer scripts, scored and generated data that was subjected to statistical analysis.

The control group was taught by two form Maters who acted as the research assistants in both school locations using the conventional method of teaching. Similarly, the experimental group was taught by another two research assistants using the reflective teaching strategy.

The pre-test items were reshuffled and used as the post-test. This reduced the likely effect of the pre-test on the post-test. In order to avoid researchers' bias, the researchers were not directly involved in administering the instrument both in the pre-test and post-test. Mean and standard deviation was used to answer the research questions, while t-test and analysis of co-variance (ANCOVA) were used to analyze the null hypotheses at 0.05 level of significance.

### 3.1 Results

What is the effect of gender on reading comprehension achievement of students with emotional behavioral disorder?

**Table 1: Mean and standard deviation of reading comprehension achievement scores of male and female students with emotional behavioral disorder**

Gender	Pre-test			Post-test		
	N	Mean	SD	Mean	SD	Mean Gain
Male	15	28.00	07.44	46.40	13.05	18.40
Female	20	27.30	07.13	55.50	18.70	28.20

Table 1 revealed the reading comprehension achievement scores of male and female students with emotional behavioral disorder. It shows that male students had post-test mean reading comprehension achievement score of 46.40 with a standard deviation of 13.05 and mean reading comprehension achievement score of 28.00 with standard deviation of 7.44 at the pre-test. The females had post-test mean reading comprehension achievement score of 55.50 with a standard deviation of 18.70 and reading comprehension achievement score of 27.30 with standard deviation of 7.13. Mean gain scores of 18.40 and 28.20 for the male and female students with emotional behavioral disorder respectively may have indicated that female students with emotional behavioral disorder achieved higher than their male counterparts.

What is the interaction effect of method of teaching and gender on reading comprehension achievement of students with emotional behavioral disorder?

**Table 2: Mean and standard deviation of reading comprehension achievement scores of students with emotional behavioral disorder for the interaction effect of method and gender**

Group	Gender	N	Pre-test		Post-test	
			Mean	SD	Mean	SD
Reflective	Male	8	27.62	07.50	52.25	14.62
	Female	12	28.58	05.10	65.08	17.45

Conventional	Male	7	28.42	07.95	39.71	07.11
	Female	8	25.37	09.50	41.12	08.75

Table 2 shows the interaction effect of method and gender on students' reading comprehension achievement. It shows that male students who were exposed to reflective teaching had a post-test mean reading comprehension achievement score of 52.25 with a standard deviation of 14.62 against their pre-test reading comprehension mean achievement score of 27.62 with standard deviation of 07.50 while the male students who were exposed to conventional method had a post-test mean reading comprehension achievement score of 39.71 with a standard deviation of 07.11 against their pre-test reading comprehension mean achievement score of 28.42 with standard deviation of 07.95. Female students who were exposed to reflective teaching had a post-test mean reading comprehension achievement score of 65.08 with a standard deviation of 17.45 against their pre-test reading comprehension mean achievement score of 28.58 with standard deviation of 05.10 while the female students who were exposed to conventional method had a post-test mean reading comprehension achievement score of 41.12 with a standard deviation of 08.75 against their pre-test reading comprehension mean achievement score of 25.37 with standard deviation of 09.50. Invariably, both male and female students with emotional behavioral disorder who were exposed to reflective teaching had higher post-test mean reading comprehension achievement scores than the male and female students of the control group.

**Table 3: Analysis of Covariance of the effect of method on the reading comprehension achievement scores of students with emotional behavioural disorder**

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	4071.980 <sup>a</sup>	4	1017.995	5.386	.002
Intercept	5793.953	1	5793.953	30.654	.000
Pre-test	20.300	1	20.300	.107	.745
Group	2817.112	1	2817.112	14.904	.001
Gender	410.223	1	410.223	2.170	.151
Group * Gender	289.699	1	289.699	1.533	.225
Error	5670.420	30	189.014		
Total	102932.000	35			
Corrected Total	9742.400	34			

a. R Squared = .418 (Adjusted R Squared = .340)

There is no significant difference between the mean reading comprehension achievement scores of male and female students with emotional behavioural disorder exposed to reflective teaching.

Table 3 shows that the probability associated with the calculated value of F (2.170) for the influence of gender on reading comprehension achievement of students with emotional behavioral disorder is 0.151. Since the probability value of 0.151 is greater than 0.05 level of significance ( $p > .05$ ), the null hypothesis was accepted meaning that there is no significant difference between the mean reading comprehension achievement scores of male and female students with emotional behavioural disorder.

There is no significant interaction effect of method and gender on reading comprehension achievement of students with emotional behavioral disorder

Table 3 reveals that the calculated value of F (1.533) for the interaction effect of method and gender on reading comprehension achievement of students with emotional behavioral disorder had a probability

value of 0.225. Hence, there is no significant interaction effect of method and gender on reading comprehension achievement of students with emotional behavioral disorder since the probability value of 0.225 is greater than the 0.05 level of significance ( $p > 0.05$ ).

#### **4. Discussion**

The findings of the study revealed that female students with emotional behavioral disorder achieved higher than their male counterparts. It was further revealed that there is no significant difference between the mean reading comprehension achievement scores of male and female students with emotional behavioural disorder. This finding is in agreement with the findings of Oladepe (2012), Alokun (2010) and Marjah (2008). Oladepe (2012) found that there was no significant difference in academic achievement of male and female students at the pre-test, post-test and delayed post-test level respectively. Alokun (2010) revealed that there was a significant negative relationship between students' problem and academic achievement among male, female, rural and urban students. Marjah (2008) found that there is no significant difference in the achievement scores of male and female students in reading comprehension.

The findings of the study revealed that male and female students with emotional behavioral disorder who were exposed to reflective teaching had higher post-test mean reading comprehension achievement scores than the male and female students of the control group. However, further analysis showed that there is no significant interaction effect of method and gender on reading comprehension achievement of students with emotional behavioral disorder. This finding is in agreement with the finding of Oladepe (2012) that there is no significant interaction effect of treatment and gender on students' achievement in Mathematics using cooperative learning teaching strategy and Marjah (2008) who found that there is no significant difference in the achievement scores of male and female students in reading comprehension.

#### **Conclusions**

Based on the findings of the study, the researchers concluded that reflective teaching significantly proved more effective than conventional method in enhancing academic achievement of students with emotional behavioral disorder. However, gender was not a significant factor. It was equally found that reflective teaching is not gender biased.

#### **Implications for sustainable development**

Students with emotional behavioral disorder are not the easiest to be taught in an inclusive classroom. Such silo from the result of the study can be broken with the use of reflective teaching. It is interdisciplinary. Reflective teaching blends learning, inquiry and critical thinking skills, questioning skills, discussion, use of concept maps and collaborative learning in order to promote effective teaching and learning. All these take care of the student in an inclusive classroom. Goals four and sixteen of the millennium development goals which are to ensure inclusive and equitable quality education and promote lifelong learning opportunities for all and provide peaceful and inclusive societies for sustainable development, were addressed with reflective teaching to help students with emotional behavioral disorder.

From the study, reflective teaching was effective in improving reading comprehension of students with emotional disorder. The gender difference was not significant. By implication, reflective teaching should be adapted to the school curriculum to break down the silo involved with reading comprehension which may hinder students with emotional behavioral disorder in other academic achievements in school. It is only when a student can read that he can understand other subjects. Moreover, low academic achievement can lead to further emotional behavioral disorder.

Each student is a member of the society. Each member of the society is expected to contribute positively for all round sustainable development. Reflective teaching will help the student to learn and subsequently exhibit positive behavior. Also, it will reduce the resultant effect that emotional behavior disorder can have on the society. When the problem is not adequately addressed and on time, the victims may eventually become real problems to the society.

## REFERENCES

- Alokan, F. B. (2010). Influence of sex and location on relationship between students problems and academic performance. *The Social Sciences (TSS)*, 5(4), 340-345.
- Anderson, J. A (2001). A comparison of the academic progress of students with emotional behaviourally disorders and student with LD. *Journal of Emotional and Behavioural Disorders*, 9, 106 - 113.
- Atikpui, F. N. B. (2008). Reading questioning and direct instruction strategies in enhancing comprehension skill of students with Emotional behavioural disorder in Oyo Township, Oyo state. *Unpublished Master's Thesis. Ibadan, University of Ibadan, Library.*
- Anyima, O. (2010). On the epistemology of reflective practice. *Teacher and Teaching Theory and Practice*. 1(1) 33 – 50.
- Ayafou, E. (2012). The effect of reflective teaching on the academic achievement of students with learning disabilities in basic science. *Unpublished Master's Thesis, Department of Educational Foundations University of Nigeria, Nsukka.*
- Chow, P., Blais, L., & Hemingway, J. (1999). An outsider looking in: Total inclusion and the concept of equality. *Education*, 119, 459-464. Retrieved from <http://web1.epnet.com/citation.asp?>
- Dele-Ojuawo, B. C. (2008). Peer-tutoring approach in the enhancement of reading ability of students with learning disabilities in selected schools in Ibadan, *Unpublished Master's Thesis, Ibadan: University of Ibadan, Library.*
- Douglas, H (2016). Top 5 Strategies for Reading Comprehension Problems. <https://www.parentingspecialneeds.org/article/top-5-strategies-for-reading-comprehension-prob>
- Durkin, M. U. (1993). Improving the Reading Comprehension of Middle School Students in Inclusive Classrooms. *Journal of Adolescent and Adult Literacy*. 2, 116 – 124.
- Elwoods, K. E. and Carlisle, P. (2004). An observational study of delivered and received aggression, gender, social psychological adjustment in preschool: This white crayon doesn't work early. *Childhood research quarterly*, retrieved on 08/05/2013 from <http://wrings:buffalo.edu/psychology/labs/socialblatab/ostror%20%20FCRRQ.pdf>.
- Gargiulo, R. M. (2003). *Special education in contemporary society: An introduction to exceptionality*. UK: Wadsworth, Thomson Learning.
- Garrison, D. R. and Archer, W. (2000). A transactional perspective on teaching learning: A framework for adult and higher education. Oxford UK: Pergamon.
- Hammond, H., & Ingalls, L. (2003, Winter). Teachers' attitudes towards inclusion: Survey results from elementary school teachers in the southwestern rural school districts. *Rural Special Education Quarterly*, 22(1), 255-261.
- Hassan (2013). Head teachers' consideration for inclusion of persons with special needs in regular schools in Yobe State. *Journal of the National Council for Exceptional Children* 15(1) 70-75.

- Heflin, L. J., & Bullock, L. M. (1999). Inclusion of students with emotional behavioral disorders: A survey to teachers in general and special education. *Preventing School Failure, 43*(3), 103- 111.
- Hung, T. O., and Tzeng, U. N. (2001). Educating for Insight: Educational Leadership. 12.4-19
- Individual with Disabilities Education Improvement Act of 2004, 20 U.S.C 1400 et seq. (2004 (Reauthorization of Individuals with Disabilities Act 1990).
- Jasper, J. (2005). *Teaching and learning through critical reflective practice*. London: David Fulton Publishers.
- John, U. (1997). The effects of an innovative approach to mathematics on academically low achieving students in mainstreamed settings, *Exceptional children 63*(3) 221 – 223.
- Jorm, A. F., Share, D. L., Matthews, R., & MacLean, R. (1986). Behaviour problems in specific reading retarded and general reading backward children: A longitudinal study. *Journal of Child Psychology and Psychiatry and Allied Disciplines, 27*, 33-43.
- Kauffman, J. M., Cullinan, D., & Epstein, M. H. (1987). Characteristics of students placed in special programs for the seriously disturbed. *Behavioral Disorders, 12*, 175-184.
- Keller, H. (1991). Gender issues in international politics and the millennium development goals. *Journal of Arts and Social Science Review, 3*(1) 177 – 184.
- Knitzer, C. (1998). *Children with Emotional and Behavioral Disorders*. University trust publishers Owerri.
- Landrum, C. Y. & Kauffman, J. M. (1992). *Characteristics of emotional and behavioral disorders of children and youth* (4th ed.). Columbus, OH: Merrill.
- Lane, K. L. (2006). Teacher expectations of students classroom behaviour across the grade span: Which Social skills are necessary for success? *Exceptional Children, 72*, 153-167.
- Marjah. T (2008). Interaction effects of treatment and gender on secondary school students' performance in English language. *Journal of Education and practice, 6*(4); 35-47.
- Maughan, B., Pickles, A., Hagell, A., Rutter, M., & Yule, W. (1996). Reading problems and antisocial behavior: Developmental trends in comorbidity. *Journal of Child Psychology and Psychiatry, 37*, 405-418.
- Nelson, J. R. (2004). Academic achievement of K-12 students with emotional and behavioural disorders. *Exceptional Children, 71*, 59-73.
- Nworgu, B. G (2006). *Educational Research: Basic Issues and Methodology (2<sup>nd</sup> Edition)*. Enugu: University trust Publisher.
- Obiyo, N. O. (2006). Self application strategy on socio psychological behaviors of pupils. Saarbrucken, Germany: LAP Lambert Academic Publishing.

- Oludepe, I. (2012). The influence of gender on Junior Secondary Students academic achievement in basic Science using cooperative learning teaching strategy. *Journal of Education and Social Research*, 2(1), 87-98.
- Opara, A. D. (2005). The gender stereotype threat and the academic performance of women University Teaching Staff: University of Nigeria, Nsukka.
- Richards, J. C. and Lockhart C. (1994). *The teaching development through peer observation*. in press. TESOL Journal
- Sweet, E. & Snow, P. (2003). Behaviour problems in specific reading retarded and general reading backward children: A longitudinal study. *Journal of Child Psychology and Psychiatry and Allied Disciplines*, 27, 33-43.
- Ugwuanyi, L. T. and Onu, V. C. (2011). Effect of adapting local sign language on reading comprehension of children with hearing impairment in Enugu State. *Journal of National Centre for Exceptional Children*. 13(1) 1 – 10.
- Uzoegwu, O. U. (2004). Moderating Effect of Gender and age on the relationship between emotional academic adjustments. *International Journal of Psychological Studies* 3(1) 78 – 89 retrieved from [www.ccsenet.org/ops](http://www.ccsenet.org/ops).
- Van, D. B. and Espin, J. O. (2012). Reading problems and antisocial behavior: Developmental trends in comorbidity. *Journal of Child Psychology and Psychiatry*, 37, 405-418.
- Walker, H. M. and Bullis (1991). *School archival records search*. Longman, Co: Sopris West
- Wallace, F. (1996). Reflective thinking in young adolescent: Retrieved January 28, 2010 from <http://www.ciradue.dc.uk/issued42/10km/>
- West African Examination Council (2003). Chief Examiner's Report May/June.
- Wehby, J. H., Falk, K. B., Barton-Arwood, S., Lane, K. L., & Cooley, C. (2003). The impact of comprehensive reading instruction on the academic and social behavior of students with emotional and behavioral disorders. *Journal of Emotional and Behavioral Disorders*, 11, 225-238.
- Were, C. M., Indoshi, F. C., Yalo, J. A. (2010) Gender differences in self-concept and academic achievement among visually impaired pupils in Kenya. *Educational Research* (ISSN: 2141-5161) 1(8) 246-252 September 2010. Available online <http://www.interestjournals.org/ER>
- Yell, M. L. (1992). A comparison of three instructional approaches on task attention, interfering behaviors, and achievement of students with emotional and behavioral disorders. Unpublished doctoral dissertation. *Dissertations Abstracts International* 53(09), 3174. (University Microfilms No. 9236987).
- Yovanoff, U. E., Duesbery, D. N., Alonzo, B. N. & Tindal, P. N. (2005). Reading as a concept. retrieved from <http://en.wikisource.org/wi>