

EFFECT OF PEER COLLABORATIVE LEARNING STRATEGY ON SELF-EFFICACY OF PUPILS WITH BEHAVIOUR PROBLEMS IN NSUKKA EDUCATION AUTHORITY

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Abstract

This study investigated the effect of peer collaborative learning strategy on self-efficacy of pupils with behaviour problems. The moderating effect of gender as well as interaction effects of learning strategies and gender were also investigated. Three questions and three null hypotheses (tested at $P < .05$) guided the study. A quasi-experimental-pre-test, post-test, non-equivalent control group design was used for the study. One hundred and twenty five middle basic five pupils identified as pupils with Oppositional Defiant Disorder (ODD) in seven intact classes purposively selected from four middle basic schools in Nsukka town of Enugu State of Nigeria constituted the sample. Researcher-made questionnaires titled Pupils' Behaviour Problems Observation Checklist (PBPOC)(teachers version). Pupils' Behaviour Problems Measuring Scale (PBPMS), and Pupils' Self-Efficacy Belief Measuring Scale (PSEBMS) were the instruments used in collecting data for the study. The items in the questionnaires were validated by experts from Faculty of Education, University of Nigeria, Nsukka. On a test of internal consistency, the Pupils' Behaviour Problems Measuring Scale (PBPMS) yielded an alpha of 0.85. and PSEBMS yielded alpha of 0.92. Mean, standard deviation and analysis of covariance were used to analyze the data collected. Major findings of the study revealed that effect of peer collaborative learning strategy on self-efficacy of pupils with Oppositional Defiant Disorder (ODD) in Nsukka Local Government Education Authority of Enugu State is significant; Gender has no significant moderating effect on self-efficacy of pupils with ODD in Nsukka Local Government Education Authority of Enugu State; there was no interaction effects of both teaching strategies and gender on self efficacy of pupils with ODD. Major recommendation made, among others, was that every school that practices inclusive education should adopt a well structured peer collaborative learning strategy in order to capture the interest of pupils with special needs, especially pupils with ODD kind of behaviour problems. This will encourage pupils with such needs to be fully integrated as well as attain academic independence and be well adjusted.

Introduction

As pupils grow and progress through school, some of them constitute a diverse group with special needs. Some of these pupils may deviate from the classroom norm physically, socially, mentally or emotionally. This necessitates the introduction of such programmes as counseling, cognitive restructuring, and therapy to help them in their adaptation, modification, and adjustment processes. Bender

(2001) observed that such pupils may have few friends, are overtly rejected by other peers or somehow excluded from the social life of their schools. Their differences may manifest in diverse ways such as in sensory, physical, cognitive, emotional or communication disorder (Kauffman & Hallahan, 2003). Pupils with such characteristics may develop a kind of behaviour negatively different from other pupils.

Behaviour is the outward or external expression of the internal or inward processes of the individual (Nnachi, 2007). Also behaviour is an action that can be observed and measured in an objective way. Therefore, behaviour is a measurable and observable act, a response to a stimulus. Instances of behaviour include aggression, gentleness, kindness, temperament; the way one talks, laughs, smiles, jokes, eats, looks, reasons, and how one interacts with others. When one of such behaviours begins to result in undue stress for a child in school and elicits negative reactions from others, such behavior represents a distress signal (Southern Regional Education Service Center, 2014). Sometimes, pupils display inappropriate behaviour in the classroom which can make it difficult for teachers to teach effectively; the pupils to learn effectively; cause harm to themselves or others and isolate the pupil from other peers (Eze, 2009). When such behaviour occurs in the classroom settings, often from a pupil, it could be termed behaviour problem.

Behaviour problem is behaviour that is socially defined as a problem, as a source of concern, or as undesirable by the social and legal norms of conventional society and its institutions of authority (Jessor, 2013). It is behaviour that digresses from what the majority approves of, or a variation of a normal behaviour (Aderson, 2012). Behaviour problem is any form of behaviour that is consistently different from what is expected of a pupil's academic and social authorities of life (Steinberg & Morris, 2001). Operationally, in this study, behaviour problem is any form of behaviour that disrupts or inhibits the teacher, peers, and the pupil who exhibits the behaviour from effective teaching and learning in the general classroom settings.

According to Quarry and Peterson (1987) behaviour problems are categorized into the following dimensions: *Oppositional Defiant Disorders (ODD)*: These are conditions in which pupils argue repeatedly with authority figures, show resentment, and often throw temper tantrums, although physical aggression is limited. These behaviours cause significant difficulties with teachers, parents, and other adults. The causes of ODD are unknown, but studies of twins and adopted children suggest that ODD has biological (including genetic), psychological, and social components. ODD usually does not occur alone. Fifty (50) to sixty five (65) percent of children with ODD also have Attention-Deficit Hyperactivity Disorder (ADHD). ODD is sometimes a precursor of Conduct Disorder (CD).

Attention Deficit Hyperactivity Disorders (ADHD): These are conditions that make it hard for many children to sit still and concentrate in a learning situation. It is the most common neurobehavioural disorder of childhood. Children with ADHD tend to be more aggressive, have more negative behavioural symptoms of ODD, and perform less well in school. Children with ADHD, also, tend to have more disruption in their families and with their relationships with authority figures. *Conduct*

Disorders (CD) is manifested by hyper aggressive and highly disruptive pupils. Pupils with CD display behaviours which are disruptive, distressing, and sometimes not age-appropriate. They may be aggressive, disobedient, destructive, deviant, assaultive, impertinent and jealous. Children with CD are at risk of developing mood disorder or antisocial personality disorder later in life. *Socialized aggression* is a condition in which pupils and youths are hostile, disobedient, and destructive. They often display both physical and verbal aggression. While similar in many ways to students with conduct disorders, they are also active in delinquent gangs and loyal to delinquent friends. *Anxiety or withdrawal disorders* are conditions in which pupils display excessive anxiety and are withdrawn. They may display nausea, pains, headaches, fears, obsessions, shyness, nightmares, crying, depression, and self-consciousness. Some pupils suffer phobias - intense fears that have no rational basis. Such individuals are unsure of themselves.

Childhood psychosis/ psychotic behaviour involve the presence of disruption in thinking, accompanied by delusions or hallucinations, along with an alteration in thought processes. Pupils who have this disorder display more unusual behaviours than others who have the other disorders. *Motor excess* involves hyperactivity that keeps pupils from sitting still, focusing or listening which may result to Attention Deficit Hyperactivity Disorder (ADHD).

For the purposes of this study, Pupils with Oppositional Defiant Disorder (ODD) were used. A study conducted by Kids Mental Health (2016) has shown that Oppositional Defiant Disorder (ODD) is estimated to develop in approximately 10.2% of children worldwide. It has also been found to be a prevalent problem among pupils in Nigeria schools. A prevalence rate of 15.8 % has been reported among a sample of Nigeria school children (Anthony, Adegboyega, & Timoty, 2016). Behaviour problems that can be found among pupils with Oppositional Defiant Disorder (ODD) in classroom involves bullying, verbal abuse, arguing with peers and adults, annoying people deliberately, putting blame for own mistakes on others, being easily upset by others, being angry and resentful, exhibiting truancy, being quarrelsome, spitting on the floor, being rudeness, mimicking other pupils, interfering with the work of other pupils, creating excessive noise, disregarding the right of other pupils, breaking of rules, talking out of turn, being inattentive and hitting other pupils. Such behaviour problems are referred to as externalizing behaviours, as they involve aggressive actions against siblings, peers, parents, teachers, and authority figures (Jessor, 2013). Behaviour problems that involve aggressive actions towards properties, such as theft, vandalism, drug and alcohol abuse, arson and high risk activities involving self and others are referred to as internalizing behaviours (Eskay, Onu, Obiyo & Obidoa, 2012). Observably, these behaviour problems, specifically ODD have been handled by Nigerian teachers, by the use of corporal punishment in order to ameliorate the manifestations of these problems in the regular classroom settings, where the conventional learning strategy is adopted, but to no avail. This is because such behaviour problems need a strategy that could address the special needs of such pupils.

The current trend in the education of special needs pupils all over the world is inclusion which is the practice of educating all learners, including those with severe and multiple disabilities, in neighborhood schools and general education classroom (Ormrod, 2006). The aim of including pupils with behavioural problems into the regular education classroom, according to the National Policy on Education, is to provide equal opportunities, their behavioural disability notwithstanding (FRN, 2004). Teachers are, therefore, saddled with the sole responsibility of creating an enabling environment and instructional strategies that will make the implementation of the inclusive education policy fruitful (Onuigbo, 2009). These teachers, are expected to know the needs of such pupils with behaviour problems, specifically, those with Oppositional Defiant Disorder (ODD) and proffer remedial strategy that will incorporate and meet the needs of such pupils. Researchers like Silberman and Sacks (2003), acknowledged that pupils with ODD who are in an inclusive classroom can lack social competence, self-esteem, and self-efficacy which are needed for effective adaptation into the school system.

Observably, Enugu State pupils, especially those in Nsukka Local Government Education Authority, are not an exception as some pupils are found to display various types of behaviour problems, especially, ODD during teaching and learning in the classroom. These pupils could be having some psychological and social problems. It could be that their self-efficacy are wanting. Such pupils with ODD could be contending with the challenges of negative thoughts of not being sure of self and having general feeling of insecurity that may result in manifestation of behaviours that are disruptive in the classroom settings. This kind of feeling could be a function of their belief. It could be a belief that they are incapacitated in doing or carrying out a task. The belief that "I can" and "I cannot" is a psychological frame of mind that sometimes directs one's behaviour. This kind of belief is what is termed self-efficacy.

Self-efficacy is a person's judgment of how well (or how poorly) one will cope with a situation, given the skills one possesses and the circumstances one faces. Self-efficacy is the measure of one's competence to complete tasks and reach goals (Ormrod, 2006). In other words, self-efficacy is a person's belief in the ability to succeed in a particular situation (Bandura 1997). Bandura further asserted that people build within themselves beliefs, assumptions, implicit theories, and world view that generally determine their extent of success or failure in life. Self-efficacy is one's belief in the likelihood of goal completion (Van der Biji & Shortridge- Baggett, 2002). According to Axtell and Parker (2003) self-efficacy refers to people's judgments about their capability to perform particular tasks. This is in line with what Snyder and Lopez (2007) opinion that self-efficacy is one's belief in one's ability to accomplish a thing or task using the skills one possesses under certain circumstance. All of the aforementioned states or situations are determined by the kind of self-efficacy one possesses, which may be high self-efficacy or low self-efficacy.

High self efficacy is the belief that one is competent in carrying out a task that will lead to a particular goal. Low self efficacy belief is the belief that one is not

competent in embarking on a particular task that will lead to an expected goal (Adeyomo & Torubeli, 2008).

Research by Adeyomo and Torubeli (2008) further indicate that students who develop high self efficacy belief are able to manage their learning and to resist the temptation and social pressure to be involved in such behaviour problems as delinquency, which can undermine their academic achievement. As a result, pupils with high self-efficacy belief are more likely to successfully complete their education and be better equipped for a range of occupational options in a competitive society (Bandura, Barbaraneli, Caprana, and Pastorelli, 2001). Still on high self- efficacy, Van der Bijl and Shorttridge- Baggett (2002) opined that individuals are more likely to engage in activities for which they have high self-efficacy and less likely to engage in those they do not. Pupils who have low self-efficacy are more likely to engage in activities and behaviour problems such as delinquency, dropping out of school, and school failure thereby jeopardizing their schemes at academic success and subsequent employment prospects (Bandura et al, 2001).

All in all, self efficacy, in the context of this study, is the personal beliefs pupils with ODD have in attaining success socially, academically and emotionally in a general classroom setting and at home. Thus, if the ability to produce an effect by completing a given task (capability) or activity related to a pupil's competency fails, it may lead to evaluating self as incompetent in such a task, this may make such pupil to have a feeling of being incapacitated about self which can affect one's behaviour. Suffice it to say that pupils' level of interactions with other people in the society – whether adults or other pupils - is very critical in building the level of confidence and acquisition of basic social competences needed for good interpersonal relationships. The contemporary classroom environment is an interactive as well as active place where constant and symbiotic teacher-learner and learner-learner interactions exist.

This implies that teachers guide learners to learn and learners equally help one another to learn based on their capabilities. Perhaps, in the absence of a formally planned and intense interactive forum to be initiated by teachers who are seen as the bedrock of all knowledge, pupils with ODD in the classroom will not be able to acquire some intricacies involved, in obtaining and maintaining social-emotional order with peers and acquaintances.

Given the challenges and educational needs of pupils with ODD and the differences in their social development, it becomes highly imperative that any instructional approach to teaching and learning that will cater for both academic and psychological need of pupils with ODD, at the same time achieving the main purpose of inclusive education, could be adopted by the regular classroom teacher. Recent research works which describe teaching and learning in an inclusive school and classroom suggest that peer collaborative learning strategy may promote inclusion as well as improve teaching and learning (Harper, and Maheady, 2007). The word 'collaboration' brings together the Latin "col" meaning "with " with the Latin word "labor" meaning "together". *Collaborative learning* points to cooperation between the teacher and the student, standing against the competitive system followed in a traditional classroom.

Peer collaborative learning strategy, however, is a comprehensive term for a variety of educational approaches involving joint intellectual effort by students, or students and teacher together (Srinivas, 2001). The peer collaborative learning strategy refers to a variety of teaching strategies that involves students working together face to face in pairs or small groups to accomplish a mutual educational goal or task (O' Donnell, 2006). In line with the above assertion, Harper and Maheady (2007) also testified to the efficacy of peer collaborative learning strategy when properly implemented in the classroom setting by saying that the approaches permit active engagement, frequent opportunities to respond, immediate error correction, prompt feedback on the correctness of responses, and motivational elements. These approaches also promote the integration and acceptance of pupils with disabilities (which pupils with behaviour problems like ODD are part of).

Peer collaborative learning strategy is aimed at meeting the special needs of learners who in one way or the other have difficulty in coping effectively during teaching and learning in the classroom. Peer collaborative learning strategy is perceived by educators as a valuable educational activity that enhances learning through active participation. It teaches pupils to work together co-operatively in preparation for their transition into the wider community and maximizes the use of limited technological resources (De Lisi & Golbeck, 1990).

Peer collaborative learning strategy is a cooperative arrangement among two or more persons who may have different ability coming in contact to work together with the aim of achieving a common goal. It is an instructional strategy in which student team together for an assignment. There is a possibility that each person will contribute to the success of the assignment (Diaz, Brown, & Salmons, 2010). Peer collaborative learning strategy engages students to become active participants. It protects against the danger of students' isolation and encourages questioning, discussion, and debate. It further produces intellectual synergy where many minds come to brain-storm on a problem. It develops skills, both cognitive and generic, that will benefit students in their working lives and enhance students' satisfaction of their learning experiences (Smith & Mc Gregory, 1992). Peer collaborative learning strategy has been proven to promote self-esteem and develop negotiation, organization, leadership and evaluation skills (Steven, 2008). In line with the above assertion, Eskay, Onu, Obiyo, and Obidoa (2012) opined that collaborative learning strategy gives learners the opportunity to engage in discussions, take responsibility for their own learning and thus become critical thinkers. As a result, students appear more satisfied, thus boosting self efficacy which is one of the characteristics that students with behavior problems could lack. Peer collaborative learning strategy is preferred for this study because it has been proven to be one of the best strategies for educating learners with special educational needs in primary and secondary school settings in the western world.

Peer collaborative learning strategy, in the context of this study, therefore, is the grouping of pupils into a small group, usually four members, who will work together to accomplish one or more educationally-related goals in their normal classroom settings. However, this study, adopted the *Think-Pair Share* model of peer

collaborative learning strategy. The Think-Pair- Share has the following four functions: the leader of the group; the turn taking monitor- who ensure that each participant wait for its' turn; the participatory monitor- who ensures that each member of the group contributes to the academic exercise; and the noise making monitor-who also, ensures that no member of the group disrupts other participant through noise making. The researcher's hunch is that, perhaps, collaborating pupils with ODD kind of behaviour problems in carrying out academic work could promote the self efficacy as they stand the opportunity to interact, share ideas, feel for each other and critique each other politely. Some researchers perceive males as those who exhibit ODD in the classroom more than females, while others perceive females as those who exhibit ODD in the classroom more than the males. This brings to the researcher's mind the issue of gender as another variable of interest.

Gender refers to roles, attributes and values assigned by culture and society to male and female. Gender is a culturally constructed distinction between femininity and masculinity (Wayne, 2007). Gender refers to the widely shared expectations and norms within a society about appropriate male and female behaviours, characteristics and roles (Gupta, 2000). These roles attribute and values define the behaviour of male and female and the relationship between them. They are created and maintained by social institutions such as families, governments, communities, schools, churches and media (Jude, 2013). Because of gender, certain roles, traits, and characteristics are ascribed distinctively and strictly to male and female. Socialization based on gender even within our schools assures that females are made aware that they are unequal to males. Examination of the classroom shows that females and males continue to be socialized in ways that work against gender equity.

Teachers seem to socialize females towards a feminine ideal. Females are praised for being neat, quiet, and calm, whereas males are encouraged to think independently, be active, and speak up. Females are socialized in schools to recognize popularity as being important and learn that educational performance and ability are not as important (Bailey, 1992). In a research conducted by Bailey, females in grades six and seven were rated on the understanding that for them, being popular and well liked are more important than being perceived as competent or independent. Males, on the other hand, are more likely to rank independence and competence as more important. This feminist socialization of females begins much earlier than the middle grades. At early ages, females begin defining their femaleness in relation to males. In a study of gender difference in self-efficacy conducted by Alldred (2013) females had significantly higher self-efficacy than males. This was contrary to the findings of Shkullak (2013) which reported that males had higher self-efficacy than females. In line with Shkullak's findings was Motari, Momanyi, Ogoma and Misigo (2012) that there was significant difference in self-efficacy of males and females in science subjects, with males showing higher self-efficacy than females. These differences in males and females indicate that there is need for further research on gender regarding the psychological domain (self-efficacy) of pupils with ODD in the study area.

In this study, gender will be evaluated in the light of the difference in the self-efficacy beliefs of male and female pupils with ODD. All in all, one does not know

whether such differences found in the aforementioned studies could be same in the area of this study. It is against this background that the researcher intends to investigate the effect of peer collaborative learning strategy on self-efficacy of pupils with ODD as well as their gender differences in Nsukka Local Government Education Authority.

Statement of the Problem

Some pupils with behaviour problems found in middle basic schools not only face academic challenges but also social and some psychological challenges in the education sector. They seem quite difficult to handle by teachers. This is due to their behaviour in making the teacher's activities in the classroom uninteresting and unfulfilling. Such pupils' behaviour inhibits effective teaching and learning as it affects them and other pupils in the classroom. Even the teacher may not be able to fulfill the main objective of the lesson as expected. A number of behaviour problems abound, but this study looks at Oppositional Defiant Disorders (ODD). Pupils with ODD need to be guided at the early stage, before it leads to serious adjustment problems as they advance to secondary school level. Such behaviour problems exhibited by middle basic school pupils could be traceable to their self-efficacy. When, pupils are deficient in such psychological domain, they could be found manifesting behaviours like bullying, arguing with adults and peers, refuses to comply with school rules like; fighting, quarrelling. Also putting blame for own mistakes on others, easily upset by others and being spiteful and vindictive. The exhibition of some of these behaviours could be with the intention to attract other peers' attention; gain a sense of belongingness; and identification of self. There is, therefore, the need for teachers in the general classroom settings to employ appropriate teaching and learning strategies that will help schools achieve inclusive education whose aim is to provide learners with equal opportunities irrespective of their self-efficacy disabilities.

One of such learning strategies is Peer collaborative learning strategy (PCLS) which involves peers working in pairs or small groups to discuss concepts, or find solutions to problems. PCLS gives learners ample opportunity to socialize in an interactive manner and in the process create meaning and identification of some self constructs from the learning process. The PCLS has been proven by researchers from other developed countries of the world to be effective in promoting self-efficacy belief of pupils with behaviour problems. But none of the studies under review dealt directly on effect of peer collaborative learning strategy on self-efficacy of pupils with ODD. Also, based on the available literature, such PCLS has not been explored in Nigeria situation to the best knowledge of the researcher in addressing pupils with ODD in the area of study. As such, there is dearth of information on the effect of peer collaborative learning strategy on self-efficacy of pupils with ODD in the area of study. The problem of this study put in a question form, therefore, is: what is the effect of peer collaborative learning strategy on self-efficacy of pupils with ODD in Nsukka Local Government Education Authority of Enugu state?

Purpose of the Study

The main purpose of the study is to investigate the effect of peer collaborative learning strategy on self-efficacy of pupils with Oppositional Defiant Disorder (ODD). Specifically, this study seeks to determine the:

1. Effect of peer collaborative learning strategy on self-efficacy of pupils with Oppositional Defiant Disorder (ODD).
2. Influence of gender on self-efficacy of pupils with Oppositional Defiant Disorder (ODD).
3. Interaction effect of both learning strategies and gender on self-efficacy of pupils with Oppositional Defiant Disorder (ODD).

Research Questions

The following research questions guided this study;

1. What is the effect of peer collaborative learning strategy on self-efficacy of pupils with Oppositional Defiant Disorder (ODD)?
2. What is the influence of gender on self-efficacy of pupils with Oppositional Defiant Disorder (ODD)?
3. What is the interaction effect of both learning strategies and gender on self-efficacy of pupils with Oppositional Defiant Disorder (ODD)?

Hypotheses

The following null hypotheses formulated and tested at 0.05 probability level guided the study.

- H₀₁** There is no significant effect on the self-efficacy of pupils with ODD exposed to peer collaborative learning strategy and those not exposed.
- H₀₂**: There is no significant influence of gender on self-efficacy of pupils with ODD.
- H₀₃**: The interaction effect of both learning strategies and gender on self-efficacy of pupils with ODD is not significant.

Methods

The study adopted non equivalent pre-test, post-test research design. The population of the study consisted of 125 pupils identified as those who met the criteria for Oppositional Defiant Disorder (ODD) in Nsukka education authority. Multi-stage sampling technique was used to select 125 pupils with ODD out of 3,199 that make up the population of primary five pupils (public schools) in Nsukka education authority. Three instruments which are questionnaire titled Pupils Behaviour Problems Checklist (PBPC) teachers' version, of 25 items was adapted from Emotional and Behaviour Problem Scale-Second Edition (EBPS-2) by Stephen and Tamara (2001). It was only used to identify pupils with ODD in the classroom; Pupils Behaviour Problems Measuring Scale (PBPMS) has twenty five items as well, but the statements were personalize thus: Never (N)=1; Sometimes(ST)= 2; Often=3; and Very Often(VO)=4. For each respondent, an overall mean score of 2.5 and above indicated that the pupil meets the criteria of manifesting ODD in the classroom;

Pupils Self-Efficacy Measuring Scale (PSEMS) developed by the researchers was used in collecting data for the study. While in the PSEMS, there were 30 items with 10 items cued for academic efficacy, 10 items for social efficacy and 10 items cued for emotional self efficacy. A mean score of below 2.5 indicates low self-efficacy, while a mean score of 2.5 and above indicates high self-efficacy. The instruments were face validated by five specialists- three specialists in educational psychology, one in guidance and counseling and one in measurement and evaluation in the Faculty of Education, University of Nigeria Nsukka. The validated instruments were trial-tested using nine pupils in Obollo-Afor outside Nsukka Local Government Education Authority. The scores obtained from the trial test were also used to measure the reliability of the instruments. Crobach Alpha method was adopted, and an internal consistency coefficient of 0.85 and 0.91 was obtained for PBPMS and PSEMS respectively. These were high enough for the instruments to be considered reliable. The peer collaborative learning strategy, which is the independent variable served as treatment used in the experimental group. Comprehensive exercises in English Language, Mathematics, Agricultural Science, Social Studies, Health Science, Basic Science and Home Economics were used for both the experimental and control groups in their interactive sessions. There are several techniques or models involved in peer collaborative learning strategy. One of such techniques or model which the researchers employed in this study is “Think- Pare-Share” which is made up of the turn taking monitor; the noise making monitor; the participatory monitor and the leader were employed in teaching the experimental group as they adopt the peer collaborative learning strategy. The control groups were engaged using the conventional teaching method. The researchers encouraged the research assistants to adopt the peer collaborative learning strategy all through other subjects within the course of the six weeks. This enabled the pupils to have an intensive engagement of the strategy apart from the six weeks periods specifically meant for the research. The researchers administered the instruments personally to the respondents. The questionnaires were all completed and handed over to the researchers. The data collected were analyzed using mean, standard deviation and analysis of covariance (ANCOVA).

Results

Research Question One: What is the effect of peer collaborative learning strategy on self-efficacy belief of pupils with oppositional defiant disorder (ODD)?

Table 1: Mean and Standard Deviation of Self-Efficacy Belief Ratings of Pupils with ODD Exposed to Peer Collaborative Learning Strategy and those not Exposed

Group	Pre-test			Post-test		
	N	Mean	SD	Mean	SD	Mean Gain
Experimental	64	2.02	.23	2.87	.08	0.85
Control	61	2.04	.45	2.23	.20	0.19

Table 1 shows that pupils with ODD in the experimenter group had mean self-efficacy rating of 2.02 with a standard deviation of .23 while those in the control group had mean self-efficacy rating of 2.04 with a standard deviation of .45 at the pre-test. The table, also shows that pupils with ODD who were exposed to peer collaborative learning strategy had mean self-efficacy rating of 2.87 with a standard deviation of 0.08 at the post-test while those that were not so exposed had mean self-efficacy rating of 2.23 with a standard deviation of 0.20. Mean gain self-efficacy of 0.85 and 0.19 for the two groups respectively imply that the pupils with ODD who were exposed to peer collaborative learning strategy had higher self-efficacy rating than their counterparts.

To further determine the effect of peer collaborative learning on self-efficacy of pupils with ODD and to test hypothesis 1, analysis of covariance was presented in table 2.

Hypothesis One: There is no significant effect in the mean self-efficacy of pupils with ODD exposed to peer collaborative learning strategy and those not exposed.

Table 2: Analysis of Covariance of the Effect of Peer Collaborative Learning Strategy on the Self-Efficacy of Pupils with ODD

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.
Corrected Model	4.003 ^a	4	1.001	47.190	.000
Intercept	6.107	1	6.107	288.004	.000
Pre-Self Efficacy	.021	1	.021	.984	.328
Group	2.677	1	2.677	126.265	.000
Gender	.020	1	.020	.927	.342
Group * Gender	.000	1	.000	.010	.920
Error	.742	122	.021		
Total	278.623	125			
Corrected Total	4.745	124			

a. R Squared = .844 (Adjusted R Squared = .826)

Analysis of result in Table 2 shows that the probability associated with the calculated value of F (126.265) for the effect of peer collaborative learning strategy on self-efficacy of pupils with ODD is 0.000. Since the probability value of .000 is less than the .05 level of significance ($p < .05$), the null hypothesis was rejected. Thus, there is a significant effect in the mean self-efficacy of pupils with ODD exposed to peer collaborative learning strategy and those not exposed in favour of the experimental group.

Research Question Two: What is the influence of gender on self-efficacy of pupils with ODD exposed to peer collaborative learning strategy?

Table 3: Mean and Standard Deviation of Self-Efficacy Ratings of Male and Female Pupils with ODD Exposed to Peer Collaborative Learning Strategy

Gender	Pre-test			Post-test		
	N	Mean	SD	Mean	SD	Mean Gain
Male	77	2.04	.37	2.65	.32	0.61
Female	48	1.99	.15	2.48	.40	0.49

Analysis of data in Table 3 reveals that male pupils with ODD had mean self-efficacy of 2.04 with a standard deviation .37 at the pre-test, while their female counterparts had mean self-efficacy of 1.99 with a standard deviation of .15. The analysis of results in the Table also indicates that male pupils had mean self-efficacy of 2.65 with a standard deviation of 0.32 at the post-test while their female counterparts had mean self-efficacy beliefs of 2.48 with a standard deviation of 0.40. Mean gain self-efficacy of 0.61 and 0.49 for male and female pupils with ODD respectively indicate that male pupils had higher mean self-efficacy than their female counterparts.

To further determine the influence of gender on self-efficacy of pupils with ODD, and to test hypothesis 2, analysis of covariance presented in Table 2 addressed the result.

Hypothesis Two: There is no significant influence of gender on self-efficacy of pupils with ODD exposed to peer collaborative learning strategy.

Analysis of results in Table 2 shows that the probability associated with the calculated value of F (0.927) for the influence of gender on self-efficacy of pupils with ODD is 0.342. Since the probability value of .342 is greater than the .05 level of significance ($p > .05$), the null hypothesis was accepted. Thus, the mean difference of male and female self-efficacy of pupils with ODD is not significant.

Research Question Three: What is the interaction effect of both learning strategies and gender on self-efficacy of pupils with ODD in Nsukka Local Government Education Authority?

Table 4: Mean and Standard Deviation of Self-Efficacy of Pupils with ODD for the Interaction Effect of both Learning Strategies and Gender

Group	Gender	N	Pre-test		Post-test	
			Mean	SD	Mean	SD
Experimental	Male	41	2.04	.23	2.86	.09
	Female	23	1.88	.19	2.91	.04
Control	Male	36	2.04	.58	2.21	.12
	Female	25	2.04	.12	2.26	.29

Table 4 shows that male experimental group had a post-test mean self-efficacy of 2.86 with a standard deviation of 0.09 while the male pupils with ODD of

the control group had a post-test mean self-efficacy belief of 2.21 with a standard deviation of 0.12. For the female pupils with ODD, the experimental group had a post-test mean self-efficacy of 2.91 with a standard deviation of 0.04 while the control group had a post-test mean self-efficacy of 2.26 with a standard deviation of 0.29. This by implication shows that both male and female pupils with ODD of the experimental group had higher self-efficacy than the male and female pupils of the control group.

In order to further determine the interaction effect of both learning strategies and gender on self-efficacy of pupils with ODD, and to test hypothesis 7, analysis of covariance presented in Table 2 has the result.

Hypothesis Three: The interaction effect of both learning strategies and gender on the self-efficacy of pupils with ODD is not significant.

Analysis of results in Table 4 shows that the probability associated with the calculated value of F (0.010) for the interaction effect of both learning strategies and gender on self-efficacy of pupils with ODD is 0.920. Since the probability value of .920 is greater than the .05 level of significance ($p > .05$), the null hypothesis was accepted meaning that the interaction effect of both learning strategies and gender on the self-efficacy of pupils with ODD is not significant.

Discussion

The result of this study revealed that the use of peer collaborative learning strategy has a significant effect on self-efficacy of pupils with Oppositional Defiant Disorder (ODD). Pupils with ODD that were exposed to peer collaborative learning strategy had a higher mean self-efficacy score in their posttest than their counterparts exposed to the conventional strategy. This finding is in agreement with the study conducted by Robert (2011); Bruno, Martin and Thierry (2008); Shoja, Hossein, Rais, Moosa and Khalil (2012) and Nwafor (2014). These researchers found that the use of collaborative and cooperative learning strategy enhanced the self-efficacy of their subjects in various dimensions of life. Their findings were in favour of the students exposed to peer collaborative learning strategy. The finding of Sare and Yasemin (2004) negates the findings of this study. This is because their finding revealed that there was no significant effect of jigsaw technique (collaboration technique) on students' mathematics self-efficacy perceptions.

Although, analysis of results reveals that male pupils with Oppositional Defiant Disorder (ODD) had mean self-efficacy belief score of 2.65 with a standard deviation of 0.32 in the post-test while their female counterparts had mean self-efficacy score of 2.48 with a standard deviation of 0.40. Mean gain self-efficacy score of 0.61 and 0.49 for male and female pupils with ODD respectively indicate that male pupils had higher self-efficacy than their female counterparts. Results also reveal that gender, as a factor, has no significant influence on self-efficacy of pupils with ODD. This is in agreement with the study conducted by Angela, Meixum, Hiller and Spires (2011) on enhancing 5th grade science content knowledge and self-efficacy through game-based learning in South Eastern part of the United States. The result showed

that there were no differences across males and females in terms of responses to science self- efficacy. This finding also contradicts the finding of Jane's (2014) study and the finding of Rudina's (2013) study. Their findings were that females had lower self-efficacy than their male counterparts and that males showed a significantly higher self-efficacy than their female counterpart respectively.

Results revealed that male pupils with ODD in the experimental group had a post-test mean self-efficacy belief score of 2.86 with a standard deviation of 0.09 while male pupils in the control group had a post-test mean self-efficacy belief score of 2.21 with a standard deviation of 0.12. The female pupils with ODD in the experimental group had a post-test mean self-efficacy belief score of 2.91 with a standard deviation of 0.04 while those in the control group had a post-test mean self-efficacy belief score of 2.26 with a standard deviation of 0.29. This shows that both male and female pupils with ODD in the experimental group had higher self-efficacy belief than the male and female pupils in the control group. This is further buttressed in the results of analysis, which shows that the probability associated with the calculated value of F (0.010) for the interaction effect of peer collaborative learning strategy and gender on self-efficacy belief of pupils with ODD is 0.920. Since the probability value of .920 is greater than the .05 level of significance ($p > .05$), the null hypothesis was not rejected. This means that the interaction effect of peer collaborative learning strategy and gender on the self-efficacy belief of pupils with ODD is not significant. The enhancement of the pupils' self-efficacy belief was, therefore, as a result of the intervention using peer collaborative learning strategy and not a result of other factors. This finding is in agreement with the study of Nwafor (2014) which revealed that there was no significant interaction effect of collaboration strategy and gender on academic self-efficacy belief of students with visual impairment.

Conclusions

From the following findings and discussions, the following conclusions were made:

1. The use of peer collaborative learning strategy for pupils with ODD can enhance their self-efficacy.
2. Gender was not a significant factor in the self-efficacy of pupils with ODD.
3. The interaction effect of both learning strategies and gender on self-efficacy of pupils with ODD is not significant.

Recommendations

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

1. Every school that practices inclusive education should adopt a well structured collaborative learning strategy in order to capture the interest of pupils with special needs like pupils with ODD. This will encourage pupils with such needs to be fully integrated.
2. Having seen the positive effect of peer collaborative learning strategy on the self-efficacy of pupils with ODD in middle basic school, the Federal and State

Ministries of Education should incorporate it as an essential part of the teacher training programme in Faculty of Education found in the Nigerian Universities, Colleges of Education and National Teacher Institutes. In this way, potential teachers who will teach pupils with behaviour problems and other special needs students will be well equipped to face the challenges of meeting the diverse social and academic needs of the learners in the general classroom settings.

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