RELATIVE EFFECTS OF TWO COOPERATIVE INSTRUCTIONAL STRATEGIES ON CULTURE OF PEACE AMONG SECONDARY SCHOOL STUDENTS IN Ogun State, Nigeria

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Abstract
The strive for reducing conflict all over the world has necessitated the need to build the culture of peace in the individual. One of the strategies recommended for catching them young for promoting tolerance, solidarity and group understanding among people is cooperative learning. This paper therefore examined the effect of two cooperative learning strategies (Learning Together and Constructive Controversy) on building students' culture of peace in Ogun State, Nigeria. Although, no significant effects (using ANCOVA) were found in the two methods of teaching on students' attitudinal disposition to culture of peace ($F(2,78) = 1.72, P > 0.05$), the post-test mean score of 89.13 obtained by constructive controversy group of students as against 86.09 scored by Learning Together group made constructive controversy to be a better viable option for promoting culture of peace. Equally, gender factor had no significant effect on the treatment ($F(1,78) = 1.066, P > 0.05$). It was therefore recommended that conventional method of teaching should always be combined with Learning Together and Constructive Controversy while
teaching peace education for building culture of peace in students.

Keywords: Cooperative learning, Instructional strategies, Culture of peace.

Introduction
The violent attitudinal disposition of some Nigerians to conflicts suggests that there is the need to explore new ways of promoting peace education to achieve culture of peace. This is evidenced by the 2011 general elections’ political violence that claimed over 700 lives (Bekoe, 2011; Campbell & Bunche, 2011; Human Rights Watch, 2011; Nwakanma, 2011); over one hundred and fifty various religious riots between 2001 and 2008 that resulted in more than 3,000 human deaths (Adeniji, 2008); the incessant Niger-Delta crises that led to crude-oil pipeline vandalization and kidnapping for ransom (Ayim, Ikemafuna & Ekwoaba, 2012; Campbell, 2012, Esikot & Akpan 2013; Lynne, 2012; Nanna, 2012) and the current rampaging Boko Haram insurgency that had decimated over 20,000 human lives till date (Nigerian Eye, 2016). While the Human Rights Watch (2014) reported that at least 2,053 civilian lives were cut-down in Nigeria as a result of the activities of Boko Haram between January and June in 2014 alone; the Global Terrorism Index (2015) cited by the Nigerian Eye (2015) ranked Nigeria as the third most terrorized country in the world in 2014 because it recorded 662 terrorist attacks that killed 7,512 people with 2,246 injured and 1,512 properties destroyed.

This worrisome trend coupled with the UNESCO admonition on establishing the culture of peace worldwide, possibly explains why the 2007 Nigerian nine-year Basic Education Studies Curriculum for the Junior Secondary School has themes on Peace Education. Some of the themes that are to build the culture of peace in the students are meaning of peace, types of peace, importance of peace (tolerance, social justice, human rights etc). Others include meaning of conflict, types of conflict, examples of conflict, causes of conflict, non-violent methods of resolving conflicts, and global/
international cooperation (Nigerian Education Research and Development Council, 2007).

Indeed Nigeria had been sliding in world peacefulness ranking from 118th position (2.570) out of 162 countries in 2008 to 127th (2.599) in 2009, 131st (2.630) in 2010, 137th (2.613) in 2011, 146th (2.707) in 2012, 148th (2.693) in 2013 and 151st (2.710) in 2014 (Institute for Economics and Peace, 2014). According to the report, the economic cost of the deteriorated 2014 peace index is equivalent of US 1,350 dollars per person. Thus, the justification for culture of peace can be found in the submission of Kester (2007) that “since wars begin in the minds of men (and women), it is in the minds of men (and women) that the defences of peace must be constructed” (p.2). This therefore calls for learning to live together in harmony (Ogunyemi, 2006).

Although many studies have not been done in Nigeria on students’ attitude to culture of peace using cooperative learning strategies, research findings elsewhere are quite revealing (Adetoro, 2014). In the past, efforts at promoting social cooperation in the classroom had been through the use of cognitive developmental theories (Piaget, 1950 & Vygotsky, 1978); social learning theory (Bandura, 1962; Lave & Wenger, 1991) and operant conditioning theory (Skinner, 1968). However, social interdependence theory (Deustch, 1962; Lewin, 1935) has gained upper hand due to its wider applications (Johnson & Johnson, 1989). For example, Johnson and Johnson (1989) discovered that working cooperatively creates far more positive relationships among diverse and heterogeneous students than does learning competitively or individualistically. Using social judgment theory, they found that individual’s likeness or dislikeness of other people is as a result of the process of acceptance or rejection and that relationships with peers influence what attitudes and value to be upheld by an individual (Johnson & Johnson, 2009). Equally, the research findings of Lowry and Johnson (1981); Johnson, Brooker, Stutzman, Hultman and Johnson (1985) showed that participating in a controversy consistently promoted more positive attitudes towards an issue while LeCount, Evans and Marugana (1992) discovered that participating in a controversy resulted in a shift of attitudes on gender issues over a

In the Nigerian context, while Ifamuyiwa (2006) discovered that the students exposed to self-instructional method in Mathematics had higher post-test attitude mean score than the cooperative learners; the research finding of Obiyo (2011) showed that the cooperative learning group learnt better among themselves with good working relations. Ibraheem (2011) also discovered a significant difference in the attitudinal scores of the chemistry students taught with STAD cooperative method (with competition) compared with STAD group (without competition) and conventional group learners.

The theoretical foundation of this study is based on Bandura (1976) social learning theory. This theory stipulates that an individual learns aggressive responses from observing others personally or through the media and environment. Along the same thought, Siegel (1992) submitted that “children learn to act aggressively when they model their behaviour after violent acts of adults...” (p. 170). This suggests that violent attitude needs to be gradually moderated through tolerance and solidarity behaviour that could be promoted in learning together and constructive controversy engagement in the classroom.

Learning Together (LT) and constructive controversy (CC) have been found to be the most successful instructional methods of cooperative learning over the years (Johnson & Johnson, 1989; Johnson, Johnson & Stanne, 2000). In LT, students work together in groups of five with division of labour and each sharing opinions and materials to achieve specific instructional objectives. Its procedure includes selection of group leaders/moderators and recorders; shared-contributions by all members of each group; presentation of consensus by group leaders to the whole class with groups reward for achievement.
On the other hand, CC as a model of constructive engagement in the classroom is an instructional procedure that exists when one person’s ideas, information, conclusions, theories and opinions are incompatible with those of another, and the two seek to reach an agreement (Johnson and Johnson, 1989, 1995, 2000 and 2009). The steps for engaging students in constructive controversy include dividing the whole class into groups of six each (three each for advocacy and opposing views), each advocate persuasively present the best case for his or her position in the group to create a reversed perspective. This, according to Johnson, Johnson and Tiffany (1984), allows participants in a controversy to re-evaluate their attitudes about the issues and incorporate opponents’ arguments into their own attitudes.

The Conventional Method (CM) of Instruction is a teacher-centred mode of teaching which is more content-driven and full of oral presentation with less of learners’ participation (Adetoro, 2012). In this situation, the teacher is the “expositor and drill master” in the classroom, with the students serving as the “storehouse” of knowledge (Bruner, 1969; Berliner, 1975). During the lesson under CM, the students only take down notes and sometimes allowed to ask questions.

On gender as a moderator factor, research outcomes have been inconclusive in cooperative learning. As examples, while Gardner, Mason and Matyas (1989) and Gardner (1993) found that girls benefitted more from cooperative settings than boys, the outcomes of Yusuf’s (2007); Turnuklu and Totan’s (2012) works revealed no such significant results, Adeyemi (2008) in a comparative application of cooperative learning and problem-solving strategies in social studies teaching discovered that it was the boys that out-performed girls significantly in the cooperative class. The objectives of this paper are therefore to investigate which of the LT, CC and CM would promote higher positive attitudinal outcomes for building culture of peace in learners and effect of gender on learning outcomes.

Research Questions
1. What is the relative difference between the mean scores of the three group of students (LT, CC and CM) on their attitudinal disposition towards culture of peace?
Hypotheses
1. There is no significant difference in the post-test mean attitude scores of students exposed to culture of peace under learning together, constructive controversy and conventional methods of teaching.
2. There is no significant difference in the post-test mean attitude scores of male and female students exposed to culture of peace in the three learning strategies.

Method
The study adopted quasi-experimental design. Using multi-stage stratified sampling technique, a sample size of 99 Junior Secondary School II students participated in the study (34 for Learning Together, 32 for Constructive Controversy and 33 for Conventional Instructional Strategies). There were also 42 males and 57 females in all.

Concepts like meaning and types of peace, meaning, types and examples of conflict, meaning, types and examples of global/international cooperation, ways of promoting peace and non-violent methods of resolving conflicts selected from the 2007 Junior Secondary School Studies Curriculum were used for instructional delivery. A self-developed 30-items 'Attitude Toward Culture of Peace Questionnaire' (ATCPQ) instrument with 4-point Likert scale format ranging from Strongly Agreed (SA) = 4, Agreed = 3, Disagreed = 2 and Strongly Disagreed = 1 was used to test the attitudinal deposition of the students after five-weeks instructional delivery. The test items were subjected to content validity through positive judgments of three social studies experts and a reliability coefficient of 0.68 was obtained using Pearson Product Moment test-retest method. Means and standard deviations were calculated to answer the only research question in the study while Analysis of Covariance (ANCOVA) was used to test the significant effects of the instructional strategies and gender on the students' attitude to culture of peace.
Results and Interpretations
RQ1: What is the relative difference between the culture of peace post-test mean scores of the three group of students?

Table 1: Comparison of the Culture of Peace Post-Test Mean Scores of the Students

<table>
<thead>
<tr>
<th>Group</th>
<th>Attitude</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Pre-test</td>
<td>Post-test</td>
</tr>
<tr>
<td>Learning Together</td>
<td>N</td>
<td>34</td>
<td>34</td>
</tr>
<tr>
<td></td>
<td>Mean</td>
<td>84.91</td>
<td>86.09*</td>
</tr>
<tr>
<td></td>
<td>SD</td>
<td>10.13</td>
<td>7.99</td>
</tr>
<tr>
<td></td>
<td>Min</td>
<td>61</td>
<td>72</td>
</tr>
<tr>
<td></td>
<td>Max</td>
<td>103</td>
<td>105</td>
</tr>
<tr>
<td>Constructive controversy</td>
<td>N</td>
<td>32</td>
<td>32</td>
</tr>
<tr>
<td></td>
<td>Mean</td>
<td>86.72</td>
<td>89.13*</td>
</tr>
<tr>
<td></td>
<td>SD</td>
<td>8.85</td>
<td>6.18</td>
</tr>
<tr>
<td></td>
<td>Min</td>
<td>76</td>
<td>73</td>
</tr>
<tr>
<td></td>
<td>Max</td>
<td>114</td>
<td>98</td>
</tr>
<tr>
<td>Conventional Instructional</td>
<td>N</td>
<td>33</td>
<td>33</td>
</tr>
<tr>
<td>Strategy</td>
<td>Mean</td>
<td>87.79</td>
<td>86.97*</td>
</tr>
<tr>
<td></td>
<td>SD</td>
<td>9.97</td>
<td>7.78</td>
</tr>
<tr>
<td></td>
<td>Min</td>
<td>72</td>
<td>70</td>
</tr>
<tr>
<td></td>
<td>Max</td>
<td>124</td>
<td>101</td>
</tr>
</tbody>
</table>

As can be seen in Table 1, the students exposed to constructive controversy had the highest culture of peace post-test mean scores of 89.13, followed by the conventional method group with 86.97 while those taught with learning together scored 86.09.
Ho1: There is no significant difference in the post-test mean attitude scores of students exposed to culture of peace under learning together, constructive controversy and conventional methods of teaching.

Table 2: Summary of ANCOVA for Post-Test Culture of Peace Mean Scores.

<table>
<thead>
<tr>
<th>Source of variance</th>
<th>Sum of squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>F.sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Covariates (Pretest)</td>
<td>156.010</td>
<td>1</td>
<td>156.010</td>
<td>3.014</td>
</tr>
<tr>
<td>Intercept</td>
<td>5127.071</td>
<td>1</td>
<td>5127.071</td>
<td>99.047</td>
</tr>
<tr>
<td>Treatment (Posttest)</td>
<td>178.039</td>
<td>2</td>
<td>89.020</td>
<td>1.720</td>
</tr>
</tbody>
</table>

R$^2$ = .251 (Adjusted $R^2$ = .059).

Table 3: Summary of Multiple Classification Analysis of Students’ Attitude Scores According to Treatment and Gender.

(Grand Mean = 86.648)

<table>
<thead>
<tr>
<th>S/N</th>
<th>Variable + Category Treatment Groups</th>
<th>N</th>
<th>Unadjusted Deviation</th>
<th>Eta</th>
<th>Adjusted for Independent + Covariates</th>
<th>Beta</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Learning together</td>
<td>34</td>
<td>3.86</td>
<td>3.14</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>Constructive cont.</td>
<td>32</td>
<td>0.80</td>
<td>5.32</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>Conv. method</td>
<td>33</td>
<td>-5.00</td>
<td>.04</td>
<td>1.84</td>
<td>.65</td>
</tr>
<tr>
<td></td>
<td>Gender</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.</td>
<td>Male</td>
<td>42</td>
<td>-3.01</td>
<td>3.27</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>Female</td>
<td>57</td>
<td>-2.54</td>
<td>2.33</td>
<td></td>
<td>.36</td>
</tr>
</tbody>
</table>

Multiple $R^2$ = .251
Multiple $R$ = .501
As can be seen in Table 2, there was no significant difference in the post-test mean scores of the students on culture of peace (F(2,78) = 1.72, P > 0.05). However, the Multiple Classification Analysis (MCA) in Table 3 indicated that with a grand mean of 86.648, the students exposed to constructive controversy strategy recorded the highest adjusted post-test mean score of 91.968 (i.e. 86.648 + 5.32). The next higher adjusted post-test mean score of 89.788 (i.e. 86.648 + 3.14) was recorded by the students exposed to learning together strategy while the students exposed to the conventional instructional strategy obtained the lowest adjusted post-test mean score of 87.488 (i.e. 86.648 + 1.84). Thus, the treatment accounted for 42.25% (0.65)^2 of the variance in the post-test mean scores of the students’ attitude to culture of peace while the independent and moderator variables accounted for 25.1% (.501)^2 of the variance.

RQ3: Is there any gender significant effect on the post-test mean scores of the students’ culture of peace?

Table 4: Summary of ANCOVA for Post-Test Mean Scores on the Students’ Gender-based Culture of Peace.

<table>
<thead>
<tr>
<th>Source of variance</th>
<th>Sum of squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>F.sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Treatment Groups</td>
<td>178.039</td>
<td>2</td>
<td>89.020</td>
<td>1.720</td>
</tr>
<tr>
<td>Gender</td>
<td>55.158</td>
<td>1</td>
<td>55.158</td>
<td>1.066</td>
</tr>
<tr>
<td>Treatment x Gender</td>
<td>36.795</td>
<td>2</td>
<td>18.398</td>
<td>.355</td>
</tr>
</tbody>
</table>

Rsq squared = .251 (Adjusted Rsquared = .501).

The result of the 2-way interaction effect in Table 4 revealed no significant gender effect on the post-test mean scores of the students on culture of peace (F(1,78) = 1.066, P > 0.05). Although the mean post-test scores of the students on culture of peace based on gender factor showed no significant difference, but the MCA in Table 3 indicated that the male students recorded higher adjusted post-test
mean attitude scores of 89.918 as against the adjusted post-test mean attitude score of 88.978 obtained by their female counterparts. The result in Table 3 further revealed that gender factor accounted for 12.96% (0.36)^2 of the variance in the students’ attitude to culture of peace.

Discussion
The study revealed that even though not at a significant level, the students that were taught with constructive controversy had the highest positive attitudinal disposition to peace culture, followed by those exposed to learning together and the least being those taught with conventional method (see Tables 1 and 2). This result was supportive to the submissions of Lowry and Johnson (1981), as well as Johnson et al’s (1985), that participating in a constructive controversy consistently could promote more positive attitude on an issue. This is as a result of openness to influence attitudinal change (Johnson & Johnson, 2000).

While gender difference also reflected no significant effect on the attitude of the students to culture of peace, like in the finding of Turnuklu and Totan (2012), it was the male students that gained upper hand in adjusted post-test mean attitudinal scores. This result was contrary to that of Yusuf (2007) who found female students outperforming boys but in line with that of Adeyemi (2008), who found that boys outperformed their girls counterparts (not at significant level) while using cooperative learning strategies to teach Social Studies. Indeed, the non-significant results of the attitudinal change in this study may be as a result of the observation of Mansaray (1991) that attitude is an infinitely more intricate outcome and invariably takes a longer time to develop.

Recommendations
Arising from the outcomes of this study, the following recommendations are made:

1. Constructive controversy and learning together should be incorporated to the teaching of Social Studies at secondary schools.
2. Conducive classroom environments (full of relevant instructional resources) are required for positive engagement of students in controversy in order to promote culture of peace.

3. Culture of peace needs positive attitudinal change through constructive engagement and harmonious social interdependence that should be promoted in the Social Studies classroom.

4. Promotion of culture of peace demands that teachers of Social Studies should be more exposed to principles and techniques of engaging students in constructive controversy and learning together.

5. More involvement of females in constructive engagements are desirable to promote culture of peace in the society.

6. Secondary school students should be encouraged to join Peace Corps and participate in community services so that they can be well motivated in the art and science of constructive and non-violent engagements (Adetoro, 2014).

Conclusion
There is no doubt that Nigeria as presently ravaged by violent behaviours, need pedagogical reforms in the Social Studies class. Learning together and constructive controversy therefore, become the necessary intervention strategies that the teachers can use to deliberately teach harmonious working relationship and solidarity among the students. As a matter of fact, attitudes toward culture of peace involves much more of social scaffolding processes that need acceptable peer interactions and assertive behavior that can be built on authoritative learning. This means that there is the need to integrate conventional methods of teaching with learning together and constructive controversy for pedagogical reforms in a typical African classroom (Tabulawa, 2013). It is also necessary to catch the students young while teaching culture of peace in Nigeria.
References


In many cases, cooperative learning provides students an opportunity to be grouped not only heterogeneously by academic performance, but also by race, gender, and language proficiency. Many field experiments have evaluated the effects of cooperative learning methods on intergroup relations. The current review emphasizes studies in which the methods were compared to control groups in elementary or secondary schools for at least 4 weeks (median duration = 10 weeks) and in which appropriate research methods and analyses were used to rule out obvious bias. Students work in four- to five-member teams on self-instructional materials at their own levels and rates. Effects of Video-Based Cooperative, Competitive and Individualized Instructional Strategies on the Performance of Senior Secondary Schools Students in Geometry. Malaysian Online Journal of Educational Sciences, 2016. [72]. Differences between Elementary, Middle, and Secondary Teachers’ Perceptions and Implementation of Cooperative Learning Strategies. 2016. [73]. Interaction Effect of Co-Operative Learning Model and Students’ Implicit Theory of Intelligence on Students’ Mathematics Self Efficacy. EduInspire-An International E-Journal, 2016. [74]. Effects of jigsaw IV cooperative learning o Effects of play simulation on secondary school students achievement in chemistry. Ph.D dissertation presented to the Department of educational foundations faculty of education. Nnamdi Azikiwe University, Awka. An Introduction to teaching chemistry efficiently. Owerri: career Publishers Okoye. The effect of gender, socio economic status and school location on. Jan 2007. C Okereke. Cooperative Learning is an instructional method in which students work in small groups to accomplish a common learning goal with the teacher guidance. Cooperative learning strategies offer students the possibility to learn by applying knowledge in an environment more similar to the one they will encounter in their future work life. Teachers get the chance to work on core competencies and on students’ communication and soft skills, which are valuable for students’ success in life and work, integrating them in school curricula. Cooperative learning strategies are content-free structures that can be reused in different school contexts and we are going to learn how to use some of them.