USE OF STUDENT-TEAMS-ACHIEVEMENT DIVISION (STAD) MODEL IN THE ENHANCEMENT OF THE PERFORMANCE OF STUDENTS IN ARALING PANLIPUNAN

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Abstract

The students in Araling Panlipunan have experienced low performance rates as reflected in their NAT results in the past four years from 50.24% during the school year 2011-2012 to 41.70%, when compared to the results last year. To investigate the problem, the researcher incorporated a non-traditional method of teaching called Student-Teams-Achievement Division to obtain empirical evidence about its effects in the performance of the students. The researcher used quasi-experimental design with the pretest and posttest as the data gathering tools. Respondents were seventy Grade 8 students from Sections 8-18 and 8-19. Partial enumeration method was used in the selection of the respondents. To achieve reliable results, simple mean and independent t-test were used. Data analysis revealed that experimental group outscored significantly the control group showing the obvious supremacy of STAD model over traditional method of teaching. Results indicated that STAD was more effective instructional paradigm in teaching Araling Panlipunan as compared to the conventional method. Hence, the researcher recommended that the strategy shall be adopted by the school administration in the preparation of school curriculum development plan in Araling Panlipunan 8 to enhance collaborative teaching-learning process.

Key words: Araling Panlipunan students, enhancement, performance, STAD model

1. Introduction

“Education is regarded as a promoter of human development and seen by many to be in the center of any society’s life and concern. It is a social artifact embodying aspirations about the welfare and development of the society it deems to serve. It is expected to contribute towards the social, cultural, political and economic, welfare and development of citizens” (Molokomphale & Mhlauli, 2014, p.111). Accordingly, children who complete secondary education are expected to have acquired lifelong skills and be competitive in the global village when it comes to their employability. This therefore, calls for students to excel academically or hopefully perform to the satisfaction of the nation.

However, how will the students be expected to attain the required skills and achieve academic excellence if they are, together with the teachers, being barred by numerous issues and problems in their schools?

Evidently, one of the problems being encountered by the researcher in their school in terms of the academic performance of their students in Araling Panlipunan subject is the low achievement rate. As reflected in the latest School Improvement Plan Report (DCNHS SIP Report, 2016, p. 21), the NAT results in Araling Panlipunan for the past four years have been deteriorated from 50.24% during the school year 2011-2012 to 41.70% during the previous school year. Some of the factors that have been identified which caused the decline in the performance of the students in NAT rating were: the lack of ability to comprehend and the lack of provision of sufficient numbers of learning materials and teaching guides. In the case of Araling Panlipunan 7 and 8, the student-textbook ratio is far beyond the planning standard which is 1:1. In addition, the availability of sufficient instructional devices to address the needs of all the Araling Panlipunan students is likewise not evidenced (DCNHS SIP Report, 2016, p. 9).

Consequently, most of the teachers in Araling Panlipunan were forced to employ the recapitulated use of traditional teaching techniques such as lecture method, teacher-centered approach, and follow cookbook steps of activities and demonstrations and so on. Literally, these approaches do not provide the students with valuable skills or even with a body of knowledge that last much beyond...
the end of the term. As a result, the students have less opportunity to develop comprehension ability due to limited participation in their classroom.

To find solution to the above-mentioned problems on the limited participation of the students and on the lack of ability to comprehend which resulted to their low performance, the researcher conducted this study to investigate the issue.

Hence, the researcher planned to integrate non-traditional strategy in teaching Araling Panlipunan such as active, cooperative, collaborative and problem-based learning intervention to enhance the academic performance of our students. This non-traditional strategy is called as Student-Teams-Achievement Division (STAD) (Yeung, 2015, p.29). Clearly, the major purpose of the conduct of this study was to investigate the effects of the use of Student-Teams-Achievement Division as a learning intervention in the enhancement of the performance of the Araling Panlipunan students.

According to Rai (2007), “Students-Teams- Achievement-Division is one of the many strategies in cooperative learning, which helps promote collaboration and self-regulating learning skills. The reason for the selection of STAD is to enhance good interaction among students, to improve positive attitude towards subject, to gain a better self-esteem, and finally to increase interpersonal skills” (p. 2).

2. Method

2.1 Research Design

This study utilized the quasi-experimental design of research. Two groups – the experimental group and the control group were examined in this study at two time points using pretest-posttest as data gathering tools before and after the intervention. The instruments were used to determine whether or not there is significant difference in the performance between the experimental and the control group before and after the use of the intervention. To gather the data, the pretest was administered to both sample before the intervention; Second, the test results were analyzed and used as basis in assigning the respondents into two sample groups – the experimental group and the control group; Third, instructions were provided to the experimental group using STAD technique and to the control group using traditional method over a period of two weeks; Fourth, after the instructions were provided to both groups, the level of performance were examined through a posttest. The data gathered were treated statistically with the use of independent t-test that arrived to the conclusion on whether or not there is significant difference between the performance of the experimental group and the control group based on the mean score on the two variables before and after the intervention.

2.2 Participants

Partial enumeration method was employed in the selection of the respondents in this study. In partial enumeration method only part of the population is used to estimate the characteristics for the entire population of interest. Hence, the sample of this study consisted of seventy Grade 8 students. Specifically, the sample was selected from Grade 8 – Sections 18 and 19 students. All of the students from both sections were assigned to undertake the pretest before the intervention. Based on the results of the pretest, the two groups were determined. The group that obtained the lowest scores was assigned to the experimental group, whereas the group that obtained was assigned in the control group.

2.3. Instrumentation

The research tool used in this study was Teacher-Made Test. The test was consist of thirty items in a multiple – choice type of questions and it was constructed in line with the learning competencies adapted under the existing K to 12 Program. To check veracity of the instrument, the same had been subjected to validation.

The data gathering was done twice through pre-test and post-test. First, pretest was given to the respondents before the intervention; Second, the test result was analyzed and used as basis in assigning the respondents into two sample groups – the experimental group and the control group; Third, instruction was provided to the experiential group using STAD technique and to the control group using traditional method over the period of this study; and Lastly, after the instruction was provided to both groups, the level of performance of the experimental group and the control group were determined through a posttest.
2.4 Data Analysis

The data gathered in this study were treated statistically to be able to answer the following sub-problems. To answer sub-problem 1 on the level of performance of the respondents based on the result of their pretest before the intervention and sub-problem 2 on the performance level of the respondents based on the result of their posttest after the intervention, the simple mean was used.

The over-all performance of the respondents based on the result of their pretest and posttest were utilized as basis in order to arrive at a certain conclusion that would ascertain whether or not there is significant difference of using Student-Teams-Achievement-Division (STAD) as a learning intervention on their performance. Hence, to answer sub-problem 3 whether or not there is significant difference between the performance of the experimental group and the control group before and after the intervention, the independent t-test was used.

3. Results

This part of the study presents information and data gathered during the research to provide a clear analysis on the data and interpretation of the information.

**Pretest Result**

Table 1 presents the mean result of the pretest undertaken by the respondents before the intervention.

<table>
<thead>
<tr>
<th>Table 1. Pretest Mean Result</th>
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</thead>
<tbody>
<tr>
<td><strong>Experimental Group</strong></td>
</tr>
<tr>
<td>11.03</td>
</tr>
</tbody>
</table>

Table 1 reveals that the experimental group obtained a mean score of 11.03, whereas, the control group achieved 11.88 mean score on their pretest. Obviously, the control group gained 0.85 mean difference compared to the experimental group.

**Posttest Result**

Table 2 shows the mean result of the posttest of the respondents after the intervention.

<table>
<thead>
<tr>
<th>Table 2. Posttest Mean Result</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Experimental Group</strong></td>
</tr>
<tr>
<td>24.88</td>
</tr>
</tbody>
</table>

Based on table 2, it can be gleaned that the experimental group gained a mean score of 24.88, while the control group garnered an average score of 22.18 on their posttest. There was a mean difference of 2.70 between the means of the experimental group and the control group. The mean scores in the posttest indicated that the mean score of the experimental group were higher than the mean score of the control group.

**Determination of Significant Difference**

Table 3 summarizes the mean result and the t-value of the pretest and the posttest of the experimental group and the control group before and after the intervention.
Table 3. Significant Difference

<table>
<thead>
<tr>
<th>Tests</th>
<th>Experimental</th>
<th>Control</th>
<th>MD</th>
<th>t</th>
<th>Critical values</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre</td>
<td>11.03</td>
<td>11.88</td>
<td>0.85</td>
<td>1.05</td>
<td>1.67</td>
</tr>
<tr>
<td>Post</td>
<td>24.88</td>
<td>22.18</td>
<td>2.7</td>
<td>2.80</td>
<td>1.67</td>
</tr>
</tbody>
</table>

According to Table 3, the obtained or calculated value for the pretest was 1.05. Entering a t table with 66 degrees of freedom corresponding to the level of significance of .05, the tabled value was 1.67. On the other hand, the obtained or calculated value for the posttest was 2.80.

4. Discussion

In the pretest, notwithstanding the control group had mean scores advantage over the experimental group, the said advantage produces no significant difference, and it can also be concluded that both the same groups have low academic performance. This can be viewed on the fact that the average mean of the two groups when combined were only 11.46 out of 30 items pretest. This implies that none of the respondents obtained at least 75% rating over the 30 items pretest.

The low performance rate achieved by the respondents in their pretest may be attributed on the failure of the students to comprehend or analyze important concepts embodied in the questions in the pretest. This may be due to the effects of recapulated use of conventional teaching techniques such as lecture method, low-tech approach, and follow cookbook steps of activities and demonstrations and so on employed by the teacher prior to the intervention.

Therefore, it is obvious that successful teaching and learning take place when right teaching methods are used by the teachers. This implies that the experimental group showed better performance, showing the obvious preeminence of Student-Team-Achievement Division learning method over traditional method of teaching. The achievements of experimental group over the control group are clear evidence that the STAD intervention employed upon the experimental group is more effective teaching method as compared to traditional method of teaching used in the control group. As explained by Vasanthi (2011), the utilization of the STAD method may significantly enhance the students’ overall academic performance. In addition, students’ will also show heightened level of interest in learning after being taught using the STAD method.

Similarly, the study of Keramati (2009) found out that experimental group students taught by cooperative learning (STAD technique) are more successful than control group students. At this point, it is found that cooperative learning increased academic achievement of students to a higher level when compared to conventional teaching method. This finding concurs with the claim of Alijanian (2012) who also conducted a study to investigate the effects of STAD.

The results of this study as reflected on Table 3 showed that there was significant difference in terms of the performance of the experimental group as against the performance of the control group.

According to Table 3, the obtained or calculated value for the pretest was 1.05. Entering a t table with 66 degrees of freedom corresponding to the level of significance of .05, the tabled value was 1.67. On the other hand, the obtained or calculated value for the posttest was 2.80. Following the same procedure mentioned above, with 54 degrees of freedom and level of significance of .05, the tabled value was also 1.67.
Looking at the data corresponds to the posttest, it reveals that the obtained value was 2.80 and the tabled value was 1.67. It can be easily concluded that the obtained value is higher than the tabled value.

Clearly, there was significant difference in the performance of the experimental group and the control group after the intervention. This implies that the use of STAD cooperative method has greater impact towards the improvement of the performance of students in the experimental group as against the performance of students in control group thru conventional method. It also shows that students in experimental group who learned in a group and with cooperative learning are more effective and produce positive effects on their performance than the students in the control group under the traditional method of teaching. The possible reasons to account for the significant gains in the experimental group could be synthesized into the following categories: First, the expansion of engagement of students in the lesson through comprehensible input, interaction, and output. Second, the stimulating patterns of positive reinforcement. Third, is the complementary communicatory learning context. These three components of STAD seemed to contribute to the participants’ academic performance as demonstrated in this study.

Moreover, the accomplishment of team-mates can have an effect on one’s well-being so students become concerned with the common good. In the experimental group, efforts were made to fulfill the tasks which can be attributed to characteristic value of liability to the shared objectives. It seems that students in the experimental group had attained cooperative dexterities that encouraged them to advocate, expedite, and boost the achievement of others.

Hence, the significant gain of the experimental group on their performance concurs with the findings of Ling, Izam, and Raman (2016) that STAD cooperative learning can increase students’ achievement and enhances understanding and self-confidence. Likewise, the conclusion of Nair and Kim (2014) that the STAD method is effective in raising the mastery of the students. In addition, they also claimed that STAD helps raise the level of students’ interest. These results would imply that incorporating STAD cooperative learning in the classroom would enhance learning.

In addition, Tsai (1998) supported the same claim that STAD approach can facilitate highly acceptable results when it comes to student outcomes in academic improvement, social conducts, and affective maturity. Due to socially oriented lessons taught and learned through small group interaction, the participants in the experimental group were able to demonstrate significantly better performance than the control group.

Finally, according to Hung, Tan, and Koh (2006), active learning is act of learners becoming responsible for their own learning during which they are “actively developing thinking/learning strategies and constantly formulating new ideas and refining them through their conversational exchanges with others.

5. Conclusions
In terms of the performance in the pretest, the control group performed slightly better than the experimental group. On the other hand, in terms of the performance in the posttest, the experimental group gained significant improvement over the control group. Statistically, there was no significant difference in terms of the performance of the experimental and the control group in the pretest and before the intervention. However, there was significant difference in regards to the performance of the experimental group and the control group in the posttest and after the intervention. Finally, the STAD method was effective strategy in enhancing the performance of students in Araling Panlipunan. The positive attributes which stem from the STAD method enable students (experimental group) to actively participate in the teaching-learning process.

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