Differentiated Instruction in Araling Panlipunan for Junior High School

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Abstract - This study aimed to determine the effectiveness of differentiated instruction in Araling Panlipunan for Junior High School. The grouped involved in the study were the experimental group where differentiated instruction was applied and control group where traditional method was used. Both groups were given pre-test before the experiment and post-test after the experiment. The instrument utilized in the study is a 50 item teacher made test.

Involved in the study were the 33 Grade 8 students of Cabanaetan National High School, Mabini, Pangasinan. There were 17 student participants in experimental group and 16 student participant in control group.

The study revealed that with differentiated instruction, the students' participants in experimental group performed better than the student participant in control group and with differentiated instruction, the students performed better in Araling Panlipunan. Differentiated instruction has a better effect over non differentiated instruction.

The significant recommendations include the following: The Araling Panlipunan teachers may use differentiated instruction as method of teaching to improve performance of students.;All teachers in Araling Panlipunan should undergo trainings that support and extol the virtues of Differentiated Instruction to enhance their teaching performance in classroom learning and School administrators should start the institutionalization of Differentiated Instruction in subjects like Araling Panlipunan to maximize the capability of the learners and teachers.

Keywords- differentiated instruction, Araling Panlipunan,

INTRODUCTION

Education is an individual experience. There is always a variation in how each student studies and learn. The best method of education is to individualize the instruction to match each student's learning needs. There is a need to do just as for example, assessment of educational progress shows consistent results of gaps between poor children compared to others who are at the middle class. Therefore, teaching and learning should be flexible and adaptive in many aspects.

Teacher's strategy, learning environment, the curriculum especially the contextualized curriculum as it was contained in the K to 12 Enhanced Basic Education Curriculum, and the most, the learners. [1]

The aim of social studies (Araling Panlipunan) is to promote civic competence or a practical understanding on how to properly and effectively participate in public life. It is often discussed in terms of sustaining and developing democracy and global citizenship.

Social studies is defined by the National Council for Social Studies External as "the integrated study of the social sciences and humanities to promote civic competence." General social studies establish a foundation for all of the subsequent, more specific classes that students will take in history, civics and the like. Typically, students take general social studies in elementary school, then move to more specific areas of study in middle school, and even more in-depth subjects in high school and college.

In schools, students take social studies every year, beginning with the most basic elements of geography and history, and gradually progressing to more specific and detailed subjects as years go on. In middle school, students take a specific social studies class each year, usually revolving around world history and Philippine history, and in high school, classes are more dedicated to completing a thorough study of a particular subject, like modern American history. A few of the different areas social studies covers are geography, history, government and current events.

Teaching Araling Panlipunan (AP) is not just teaching the contents of the subject but bringing the learners into understanding better the society. Teaching AP needs a more strategic instruction that makes the class livelier and actively learning from each other rather than teaching-learning pedagogically. However, teaching AP needs teachers that are active and lively rather than traditional. Teachers teaching AP must belong to 21st Century teaching and undergone various trainings in the K to 12 Curriculum. The changes of instructional development in Araling Panlipunan started from the traditional teaching to Basic Education up to the development of K to 12 Curriculum or Enhanced Basic Education Curriculum.

Differentiating instruction may mean teaching the same material to all students using a variety of instructional strategies, or it may require the teacher to deliver lessons at varying levels of difficulty based on the ability of each student.

OBJECTIVES OF THE STUDY

The purpose of this study is to identify the specific teaching strategy that is most effective to apply to the Junior High School instructions. Moreover, this research aims to find more effective and efficient implementation of different programs in Araling Panlipunan that may help to improve the academic performance of the subject under the K to 12 Enhanced Basic Education Curriculum.

MATERIALS AND METHODS

The method used in this study is the experimental research design. Experimental research is research in which initial equivalence among research participants in more than one group is created, followed by a manipulation of a given experience for these groups and a measurement of the influence of the manipulation.

Experimental research designs are the primary approaches used to investigate causal (cause/effect) relationships and to study the relationship between one variable and another. This is a traditional type of research that is quantitative in nature. In short, researchers use experimental research to compare two or more groups on one or more measures. In these designs, one variable is manipulated to see if it has an effect on the other variable. Experimental designs are used in this way to answer hypotheses.

In this research, the student performance of Grade 8 students in Araling Panlipunan during the pretest and posttest of the control and experimental group were investigated.

The participants of the study were the Grade 8 Junior High School students at Cabanaetan National High School of Mabini District Division of Pangasinan I during the school year 2018-2019. They were the 33 students in an intact class who are currently taking up Araling Panlipunan as a subject. The division of students was done according to the general average of 1st to 3rd quarter grades of the students in Araling Panlipunan. The grades of the students were ranked from highest to lowest, and each student were assigned particular number. By tossing a coin, all even students became the control group while all odd numbered students were assigned under the experimental group who were exposed to differentiated instruction

The instrument used in this study was the pre-test and post-test in Araling Panlipunan 8. The tests administered were used to determine the performance gain and level of performance of the students in Araling Panlipunan before and after the conduct of the experiment. The teacher made test was subjected to item analysis. The test items constructed for the fourth quarter was administered to grade 9 students who already finished the topics in the same school. This was done to improve the test questions and see whether the test is very easy, moderate and very difficult. By doing this process, 10 questions were removed, 10 questions were revised and the rest questions were retained.

RESULTS AND DISCUSSION

The profile variables considered in this study are as follows: age, sex, and the general average (1st to 3rd quarter) grade of grade 8 students in Araling Panlipunan. Results can be gleaned in Table 1.

Table 1
Profile of Grade 8 Students
(N=33)

Profile Variables	Frequency	Percent (%)	Rank
Age			
12-13 years old	29	87.90	1
14-15 years old	2	6.1	2.5
16 years old and above	2	6.1	2.5
Sex			
Male	15	45.5	2
Female	18	54.5	1
General Average in Araling Panlipunan			
80-84	10	30.3	2
85-90	7	21.2	3
91-95	16	48.5	1

Mean Grade = 87.87; SD=4.15; Skewness= -.100; Kurtosis= -1.57
Minimum=81   Maximum=95

It was found out that majority (87.09%) of the grade 8 students fell under the age bracket of 12-13 years old. This depicts that the age of these students are within the normal age for 8th grader based on the Philippine K to 12 Education standards). While a small percentage (12.2%) describes students whose ages are contained in the age bracket of 14 to 15, and 16 and more than 16 years old. This implies that in Cabanaetan National High School, in Mabini District, Schools Division Office I of Pangasinan, the students are on track and conform with the projected ideal age of students depicted in the Philippine Education Setting. This further show that the teachers and administration closely monitor students' age and continuously encourage them to study while they are in their ideal prime age for high school education.

Results show in Table 1 that in in Cabanaetan National High School, particularly on the Grade 8 students taking Araling Panlipunan as a subject, the ratio of males to females is 5:6. This further means that in every 6 females there are 5 males in the classroom. This

result is slightly in contrast with the data of PSA Census on year 2010 stating that out of the 92.1 million household population in the Philippines, 50.4 percent were males and 49.6 percent were female. This resulted in a sex ratio of 102 males per 100 females in general. Moreover, in the Census conducted in year 2010, it was found out that for the age bracket of 0-14 years of age, which the Grade 8 students belong had a sex ratio of 107 males per 100 females all throughout the country. This record has been gathered in 2010, and almost nine years has already passed.

The performance of the grade 8 students in Araling Panlipunan can be described by using their general average (1st to 3rd quarter) grades. Results show in Table 1 that almost half (48.5%) of the students involved in this study secured a grade of (91-95), while the remaining half are distributed to students who obtained grades of 80-84 (30.3%) and 85-90 (21.3%).
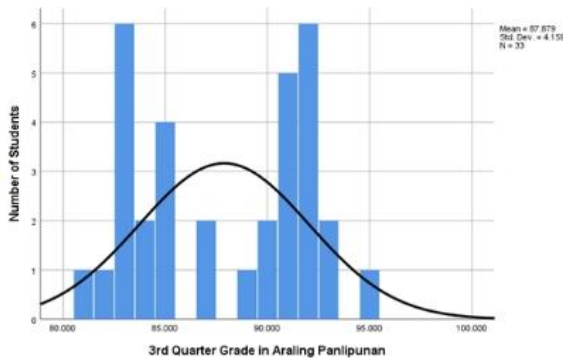

Figure 1.Graph of the General Average (1st to 3rd Quarter) Grade of Grade 8 Students in Araling Panlipunan

The recorded minimum grade is 81 while the maximum is 95. The mean grade is 87.8 with a standard deviation of 4.159. This means that the general average grades are modestly/slightly spread which further implies that the students are relatively homogeneous or quite different in grade performance.

Moreover, the graph of the general average grade in Araling Panlipunan of the Grade 8 students involved in this study is displayed on Figure 1. The skewness and kurtosis were computed to describe the shape of the 3rd quarter grades distribution. The derived values for skewness are kurtosis are -.100, -1.57 respectively. Since the computed skewness is less than zero or negative then we can describe that it as left skewed distribution . This means that most of the general average grades are concentrated on the right of the mean (87.8), with extreme values to the left. For simplicity, this only mean that there are more students whose grades are higher than 87.8. On the other hand, the obtained kurtosis value is negative. The probability for extreme values is less than for a normal distribution, and the values are wider spread around the mean. This indicates that the existence of outlier grades in the general average grade in Araling Panlipunan is quite low.

This study conducted pretest and posttest to measure the initial and final performance of the grade 8 students in Araling Panlipunan. Such can be useful to measure the performance gain of the students after exposure to differentiated instruction (experimental group) and to traditional method (control group) of teaching. A 50-item test was administered. Hence, the maximum score expected is 50. The results are displayed on Table 2.

The tabulated scores show that the highest score obtained during the pretest is 27 while the lowest is 7. The mean score is 15.88 which indicates a "fairly satisfactory" score. This surmise a fairly satisfactory or low performance in the pretest in general. To further investigate the distribution of the pretest scores, the standard deviation, skewness and kurtosis were computed and the graph of the scores is presented in Figure 2.

Table 2
Pretest and Posttest Performance of Grade 8 Students in Araling Panlipunan

Test	Lowest	Highest	Mean	SD	Skewness	Kurtosis
Pretest	7	27	15.88	4.46	.575	-0.560
Posttest	9	39	22.88	7.25	.223	0.823

The computed standard deviation value is 4.46. This means that the pretest scores are fairly/modestly spread. A right skewed distribution was obtained since the skewness value is .575. This reveals that most scores are concentrated on left of the mean (15.88), with extreme values to the right . Likewise, the computed kurtosis value (-0.56) infer a platykurtic distribution. This describes that the graph of the pretest scores is flatter than a normal distribution with a wider peak and it has lighter tails. This further suggests that the probability for extreme values is less than for a normal distribution, and the values are wider spread around the mean. We can conclude that posttest has a better performance compared to their pretest.

Based on Valiandes using differentiated instruction improve the academic performance of the students. In his recent study, it was found out that students made better progress in classrooms where differentiated instruction methods were systematically employed, compared to students in classrooms where differentiated instruction methods were not employed [2]. Based on the findings, the quality of differentiated teaching being given by the teacher has a great effect on students' achievement as well as the systematic employment of differentiated instruction methods in mixed ability classrooms in promoting equity, optimization of quality and effectiveness in teaching.
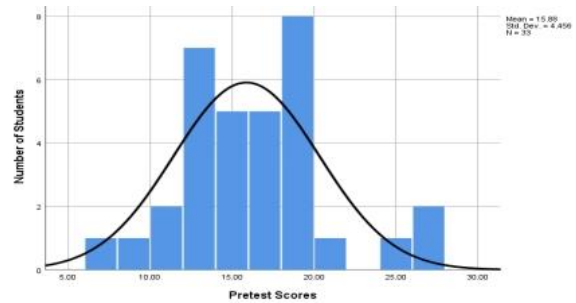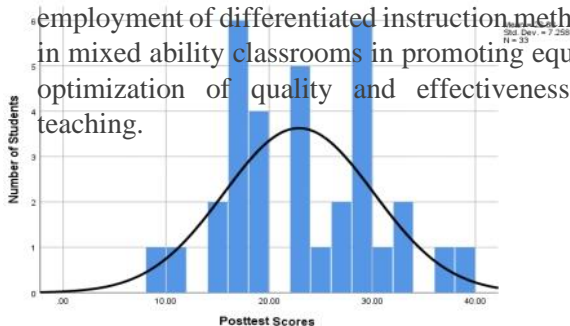

Figure 2. Graph of Pretest Scores of the Grade 8 Students in Araling Panlipunan

After the students were exposed to traditional and experimental method of teaching, the posttest was administered. The scores were tabulated in Table 2 and the graph of the scores are displayed on Figure 3. The registered maximum score is 39 and the lowest is 9, and the calculated mean score is 22.88 which was found satisfactory. The standard deviation value (7.25), dictates a more widely spread scores. We can conclude that posttest has a better performance compared to the pretest. A skewness (.233) and kurtosis (.823) was obtained. This describes that the scores in the post test is nearly comparable to a normal distribution with skewness of 0. This also imply that the distribution of the test scores is approximately symmetric around the mean. Similarly, the kurtosis value (.823) shows a graph sharper than a normal distribution concentrated around the mean and thicker/fatter tails. This means high probability for extreme test scores.

Figure 3. Posttest Scores of the Grade 8 Students in Araling Panlipunan

Moreover the performance of the grade 8 students in Araling Panlipunan was analysed using the mean, median, mode, standard deviation, kurtosis, skewness, minimum and maximum scores in order to have a complete description of the gathered data. The results can be seen on Table 2a.

Figure 4   Pretest Scores of the Grade 8 Students under Control Group

Table 2a

Pretest and Posttest Performance of the Control and Experimental Group

Descriptive Characteristics	Pretest		Posttest	
	Control	Experimental	Control	Experimental
Mean	15.00	16.71	18.31	27.18
Median	14	16	16.5	29
Standard Deviation	4.20	4.66	5.46	6.07
Kurtosis	0.42	1.35	-0.37	-0.48
Skewness	0.42	0.67	0.41	0.12
Lowest	7	8	9	17
Highest	24	27	28	39
N	16	17	16	17
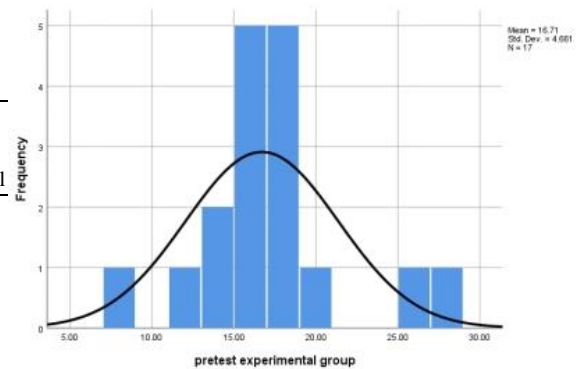
Figure 5   Pretest Scores of the Grade 8 Students under Experimental Group

The mean score during the pretest of both experimental (16.71) and control group (15.00) marked a fairly satisfactory performance. The median score for the experimental (16) was slightly higher than the median score of those under control group (14). The scores in the control group as indicated by the obtained standard deviation (4.20) entails that it was less varied than the scores in the experimental group (SD=4.66). Also, both control (sk=.42) and experimental (sk=.67) have skewness value that suggest a fairly symmetrical distribution.
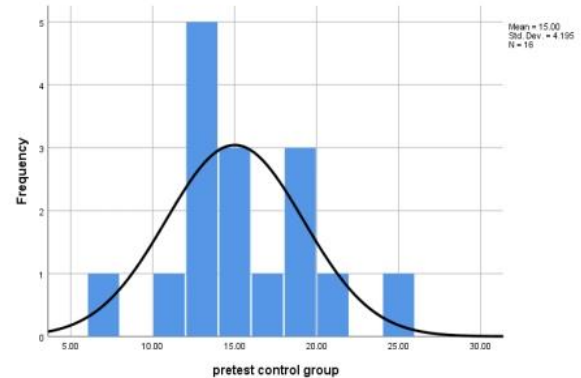
Whereas the kurtosis for control (.42) and experimental group (1.35) which were leptokurtic which means than when compared to a normal distribution, its tails are longer and fatter, and the peak are sharper. In addition, the experimental group obtained a higher maximum score (27) than the control group (24). The histogram graph of pretest scores of control and experimental group are posted on Figures 4 and 5.

Likewise, the posttest mean scores of control (18.31) and experimental group (27.18) derived different descriptive performance rating. The control group secured fairly satisfactory performance while

the experimental group attained a satisfactory performance . Moreover, the median score for experimental group (29) is higher than the control group (16.5). Also, the obtained standard deviations suggest a more varied scores in the experimental group (6.07) than the control group (5.46). The maximum score and minimum scores of the experimental group (39,17) were higher than the control group (28, 9). In addition, the scores in the experimental (sk=.12) and control group (sk=.41) obtained skewness values that suggest a nearly symmetrical distribution. The kurtosis for control group (-.37) and experimental group (-0.48) dictates a platykurtic distribution. This means that both groups had peaks that were lower and broader, which further means that the data were light tailed or lack of outliers. The graph of the posttest scores for the control and experimental group can be seen on Figures 6 and 7.
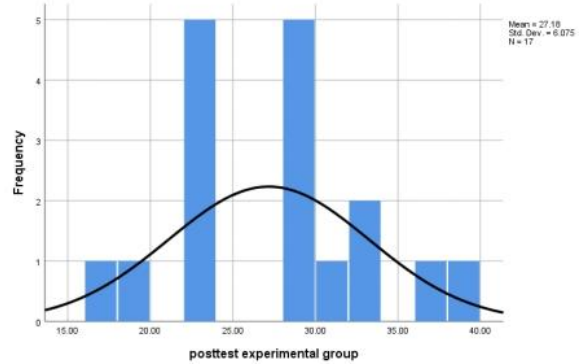

Figure 7. Posttest Scores of the Grade 8 Students under Experimental Group

The researcher compared the obtained scores in the pretest and posttest of the grade 8 students in Araling Panlipunan by employing the performance gain. The performance gain is computed by getting the difference of the posttest and pretest scores. The independent samples t-test was used to establish differences in the hypothesized statement of this research. Results of this exploration are described on the table below.
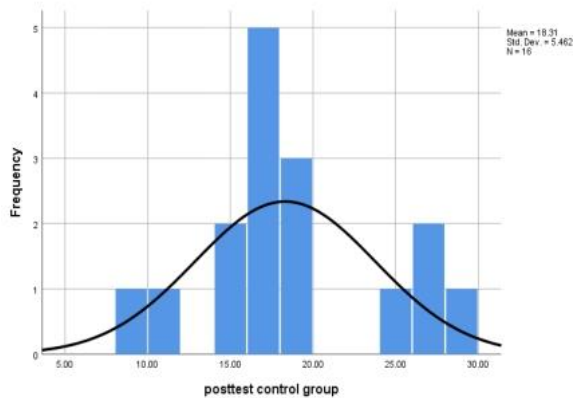

Figure 6   Posttest Scores of the Grade 8 Students under Control Group

Table 3

Comparison of the Control and Experimental Group

Performance Gain

Groups	n	Mean	SD	Mean Difference	t	Sig.
Control	16	3.31	5.09	-7.15	-4.06	.000*
Experimental	17	10.47	5.08			

*significant at .05 level of significance

The allocation of students in the control and experimental group are nearly equal as exhibited in Table 3. The performance gain of the control an experimental group are 3.31 and 10.47 respectively. This confirms that students can improve in their performance in Araling Panlipunan in both experimental using differentiated instruction and traditional teaching methods. However, results show that by exposing

students in differentiated instruction the performance gain of students is higher than the traditional lecture method of teaching. In both groups the performance gain scores are almost similarly spread as expressed by the computed standard deviations of 5.09 and 5.08, respectively. Further, the obtained t-value (-4.06) and p-value (.000) explains that the computed mean difference (-7.15) is found highly significant. Therefore, the control and experimental group are significantly different in their mean performance gain. This leads to the rejection of our null hypothesis. Hence, we conclude that differentiated instruction is a better method in teaching Araling Panlipunan than the usual traditional way of teaching.

The result was mentioned by Aranda that "differentiated instruction will be applied to determine whether there is a difference in achievement between the students who are exposed to differentiated instruction and those that undergo the traditional instructional approach. Through this, the learning styles of the grade seven to ten students will be identified and this will help in preparing lessons for each learning styles".

Additionally, the result was supported by studies of Valiandes [3] who addressed the problem on student diversity by using differentiated instruction and results of these studies confirmed that students made better progress compared to students in a non-differentiated classroom. Wan address the teachers' teaching beliefs, perceptions, attitudes and understanding on how to differentiate lessons [4]. Results revealed that there were positive attitudes toward differentiated teaching and the belief that differentiated instruction is essential for student success.

The researcher also investigated the performance gain of the grade 8 students in Araling Panlipunan when grouped according to their profile variables.

The independent samples t-test was used to investigate difference in the performance gain scores of male and female grade 8 students in Araling Panlipunan. Table 4 displays that the female group has a higher gain performance mean of 7.94 than the male group which is 5.86. The performance gain scores of both male and female groups are nearly similarly spread. Though females obtained higher performance gain, the obtained t-value (-0.9043) and p-value (0.1896) imply that the computed mean difference (-2.07) is found not significant. Therefore, the male and female groups are not significantly different in their performance gain. Hence, leads to the acceptance the null hypothesis of this study which concludes that male and female students performed the same in Araling Panlipunan.

In contrast to this study is the study of Aliakbari which explored the usefulness of differentiated instruction and traditional-based pedagogy in the promotion of male and female learners reading comprehension in separate gender educational system. Forty-seven elementary students of a language institute in Iran were chosen and divided into experimental and control groups, including one male one female classroom in each category.

The students of the experimental group were taught through the strategies of differentiated instruction, viz. flexible grouping, tiered instruction, and tiered assignments, in the areas of content, process, and product. The students of the control group also received traditional instruction strategies. The outcomes of ANOVA from post-test results indicated that the students of the experimental group outperformed the control one. Further, the computation of post hoc analysis revealed that female learners of the

experimental group performed better in comparison to male ones in the post-test

Table 4
Comparison of Performance Gain between Males and Females

Groups	n	Mean	SD	Mean Difference	t	Sig.
Male	15	5.86	5.19	-2.07	-0.9043	.345
Female	18	7.94	6.91			

*significant at .05 level of significance

The gain performance in Araling Panlipunan by age groups was explored by using one-way analysis of variance (ANOVA). Results are shown in Table 5.

Table 5
Comparison of Performance Gain in Araling Panlipunan by Age Groups

Groups	n	Mean	SD
Age group			
12-13 years old	29	7.10	6.52
14-15 years old	2	6.00	5.56
16 years old and above	2	6.50	0.71

Difference	Sum of Squares	df	Mean Square	F	Sig. (p)
Age group					
Between groups	2.810	2	1.40	.034	.966
Within groups	1223.19	30	40.77		
Total	1226.00	32			

The mean gain performances of the different age groups are 7.10, 6.00 and 6.50 respectively. The standard deviations revealed that mean performance gain scores of those from 12-13 years old are widely spread (6.52) than those who belong to 14-15 years old (5.56). Moreover, the scores of those 16 years old and above are less varied (0.71). Meanwhile, the computed F value (0.034) obtained a p-value of .966. Since the p value is greater than .05, it is

evident that the gain performances of the students in Araling Panlipunan are the same for all groups. Hence, the null hypothesis that *"the performance gain of Grade 8 students in Araling Panlipunan is not different in their age groups"* is accepted.

The researcher also inspected the gain performance of the grade 8 students when categorized according to their grades. There were three groups namely, developing, approaching proficiency and proficient groups. Table 6 unveil the results.

Table 6

Comparison of Performance Gain in Araling Panlipunan by General Average Grades

Groups	n	Mean	SD
General Average Grades			
80-84 developing	10	6.60	6.04
85-90 approaching proficiency	7	5.00	5.09
91-95 proficient	16	8.12	6.79

Difference	Sum of Squares	df	Mean Square	F	Sig. (p)
Grades					
Between Groups	49.885	2	24.92	.636	.537
Within Groups	1176.15	30	39.20		
Total	1226.00	32			

The mean performance gain of the developing (6.60), approaching proficiency (5.00) and proficient (8.12) groups were investigated using one-way analysis of variance (ANOVA). The standard deviations revealed that performance gain scores of the developing group are widely spread (6.04) than the approaching proficiency group (5.09). Moreover, the performance gain of the proficient group are more varied (6.79) than the two general average grade groups. Meanwhile, the computed F value (0.636) obtained a p-value of .537. Since the p

value is greater than .05, it is apparent that the gain performances of the students in Araling Panlipunan are the same for all general average grade groups. Hence, the null hypothesis that *"the performance gain of Grade 8 students in Araling Panlipunan is not different in their grade groups"* cannot be rejected.

CONCLUSIONS AND RECOMMENDATIONS

Based on the findings gathered in this study, the researcher arrived at the following conclusions: majority of the grade 8 students in Cabanaetan National High School, in Mabini District, Schools Division Office I of Pangasinan are within the age bracket of 12-13 years old, with male to female ratio of 5:6, with a general average in 1st to 3rd quarter grade of 91-95; the traditional and experimental method using differentiated instruction in teaching can both improve performance of the students; the experimental method specifically using differentiated instruction is a beter method in teaching Araling Panlipunan than the usual traditional way of teaching; the performance gain of the students in Araling Panlipunan is the same by sex, grades and age groups.

To maximize the advocacy and implementation of this study, the following are highly recommended: the Araling Panlipunan teachers may use differentiated instruction as method of teaching to improve performance of students; all teachers in Araling Panlipunan should undergo trainings that support and extol the virtues of Differentiated Instruction to enhance their teaching performance in classroom learning; and school administrators should start the institutionalization of Differentiated Instruction in subjects like Araling Panlipunan to maximize the capability of the learners and teachers.

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