

Effectiveness of the Modular Learning Approach to the Performance of Grade Nine Students in the Quarterly Assessments of Araling Panlipunan

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Abstract — This study aims to examine the effectiveness of the modular learning approach in Grade 9 students in the quarterly assessments of Araling Panlipunan for SY 2020-2021 in Linao National High School, Ormoc City. It further examined the performance of the students before and after the modular approach during the Quarter 1-3 and determines whether there is a significant difference in the performances of Grade 9 students before and after the Modular Learning approach. This study is a quantitative research utilizing the quasi-experimental design. There were 329 samples used in this study. Frequency counts, mean, and t-test were the statistical tools used in the study for the analysis. Results show that there were changes in the performance of Grade 9 students in Araling Panlipunan from first quarter to third quarter both in the pre-test and post-test however, the changes was less than one point. Further, the increase of scores from pre-test to post-test is statistically significant from first quarter to third quarter. These imply the learning module approach improves the performance of Grade 9 students in Araling Panlipunan.

Keywords — *Effectiveness; Quarterly assessment; Modular approach; quasi-experimental*

I. Introduction

The COVID 19 pandemic caused many impacts, such as flight cancellations, closures of schools, and an international recession. Most countries worldwide have closed educational institutions to contain the virus and slow the spread of infections (Tria, 2020). Face to face engagement, including school classes, has also been suspended worldwide. The Philippines' educational system has started to adapt the new normal in education, i.e. the distance learning. Distance learning is a type of instruction where instruction occurs through electronic media. According to Quinones (2020), distance learning consists of three media types: Modular Distance Learning (MDL), Online Distance Learning (ODL), and TV/Radio Based Instruction. A survey by the Department of Education (DepEd) found that parents have opted for print and digital modules as the preferred form of distance learning in the current academic year. It has been done in consideration of rural regions where internet connection is a problem. Thus, modular learning is the current learning modality of primary education in all public schools in the Philippines.

Teaching through a module is a bundle that takes on one particular topic/unit in a self-centred manner. It could be utilized in various places and spatial, temporal, contextual, or material suitable for the learner and can be completed at their own pace (Sadiq and Zamir, 2014). American educators developed this new form of instruction in the form of a module. As described by John L. Hughes (2000), it fosters close interaction with the subject. Every time the learners get involved in an exchange with the learning program, they are expected to respond at their learning response rate (Yazon, 2017). As Fe Nepomucino has mentioned, a programmatic module can present limited, specific concepts between other types of education. Garcia (1989) has classified the use of modules, together with programmed instruction, correspondence courses, and self-paced study kits, as part of self-paced instruction. There have been no studies on modular learning even before the pandemic. The education has already considered modular learning in flexible learning even before the covid19 pandemic. However, this learning modality has not yet been implemented in the basic education in all public schools in the country. The impact of this learning modality, the use of modules in learning, is the focus of this study.

The purpose of this study is to examine the effect of modular learning in the quarterly assessment of students in public schools. It looks into the evaluation of the students on the modules in terms of specific objectives, contents, language use, and evaluation activities. It will also answer whether the students' evaluation of the module is associated with their quarterly assessment.

Specifically, this study sought to answer the following questions:

1. What is the performance of the students before the modular approach during the Quarter 1-3?
2. What is the performance of the Grade 9 students after the Modular learning approach in Quarter 1-3?
3. Is there a significant difference in the performances of Grade 9 students before and after the Modular Learning approach?

II. Methodology

Design. This study is a quantitative research which will utilize quasi experimental design. The researcher chooses the design as it is appropriate for presenting the data employing narrative descriptions and presentations. Descriptive measures will be discussed in this study. This method allows the researcher to gather a large volume of data analyzed for frequencies, averages, and relationship.

Sampling. This study was conducted in Linao National High School, located at about 5 kilometers away from the city proper of Ormoc City with a total enrolment of 1,256 students for the school year 2020-2021. In the new normal setting, the learning modality is through modular learning since most of the students in the barangay could not afford to have an internet connection. All Grade 9 students (329) will be part of the subjects for the assessment.

Research Procedure. The researcher asked permission from the Schools Superintendent of the Division of Ormoc City for an approval for the conduct of the study. Upon securing an approval, a letter of request followed asking permission to the school head or principal of Linao National High School to allow the researcher conduct the study.

Ethical Issues. The researcher explained the Informed Consent Form to the participants or respondents before the actual data gathering will be done. It was stipulated that participation is voluntary and that they will not be forced or coerced to join. There is no obligation to pay if they don't want to join. It was explained that the participants can choose to withdraw or stop at any time during the data gathering with no payment or consequence whatsoever. Besides, personal and sensitive information will never disclosed to any person or group of persons. All data will be kept with the utmost confidentiality. In the data presentation, there will be no actual or specific names used in the discussion section of the study.

Treatment of Data. The processing of the data used statistical formula like Percentage, Weighted Mean, and Correlation Coefficient which do not reveal actual names of persons. To answer sub-problem number 1, weighted mean was utilized to measure the students' evaluation on the module in terms of specific objectives, content, language used, and evaluation activities. To answer sub-problem number 2, percentage and weighted mean was utilized to determine the students' quarterly performance in modular learning. While sub-problem number 3, t-test for mean difference was calculated to determine the significant difference in the performances of Grade 9 students before and after the Modular Learning approach.

III. Results and Discussion

Table 1
Pre-Test Performance Of Grade 9 Students In Araling Panlipunan

Score Range	Description	PRETEST Q1		PRETEST Q2		PRETEST Q3	
		F	%	F	%	F	%
33-40	Excellent	15	5	11	3	13	4
25-32	Very Good	65	20	57	18	76	24
17-24	Good	172	54	182	57	148	46
9-16	Fair	68	21	70	22	83	26
1-8	Poor	0	0	0	0	0	0
Total		320	100	320	100	320	100
Weighted Mean		23.50	Good	22.80	Good	24.00	Good

Table 1 shows the pre-test performance of Grade 9 students in Araling Panlipunan. Results show that, on average, the pre-test performance of the students is 23.50 which is described as Good in the first quarter. While it decreases in the second quarter with an average score of 22.80 (Good) and increase again in third quarter with an average score of 24.00 (Good). The change in score is less than one point.

Further, in the first quarter more than half (54%) of the respondents have scores between 17-24 points interpreted as Good which means that in every 15 students eight of them are expected to have scores in between 17-24. However, only 5% of the respondents classified as excellent in Araling Panlipunan with scores between 33-40 points. This implies that one of every 20 students is likely to have scores between 33-40 points. In the second quarter many students (57%) have performed Good in Araling Panlipunan while only 3% of the students were excellent in the subject. In the third quarter, only 46% of the students performed Good in Araling Panlipunan.

The results are comparable with the study of Maxci (2017) where most of the respondents got a grade bracket in Araling Panlipunan of 89-90 with the highest frequency of 87 in the first quarter, 90-91 with a frequency of 86 in the second quarter and 92-93 with a frequency of 83 in the third quarter. It means that the students have an improving academic performance from the first quarter period to the third quarter period. Also, the general mean was 89.30 with a standard deviation of 4.75.

Table 2
Post-Test Performance Of Grade 9 Students In Araling Panlipunan

Score Range	Description	PRETEST Q1		PRETEST Q2		PRETEST Q3	
		F	%	F	%	F	%
33-40	Excellent	280	88	293	92	284	89
25-32	Very Good	40	12	27	8	36	11
17-24	Good	0	0	0	0	0	0
9-16	Fair	0	0	0	0	0	0
1-8	Poor	0	0	0	0	0	0
Total		320	100	320	100	320	100
Weighted Mean		36.57	Excellent	37.10	Excellent	36.88	Excellent

Table 2 shows the post-test performance of Grade 9 students in Araling Panlipunan. Results show that, on average, the post-test performance of the students is 36.57 which is described as

“Excellent” in the first quarter. While it increases in the second quarter with an average score of 37.10 (Excellent) and decrease in third quarter with an average score of 36.88 (Good). The change in score is less than one point.

Further, in the first quarter 88% of the respondents have scores between 33-40 points interpreted as “Excellent” which means that in every 25 students 22 of them are expected to have scores in between 33-40 points. In the second quarter 92% have performed excellent in Araling Panlipunan which implies that 23 out of 25 students are most likely to have scores in between 33-40 points. In the third quarter, 89% of the students performed “Excellent” in the subject meaning, for every ten respondents 9 of them are likely to have scores in between 33-40 points.

It can be compared to the findings of Cruz (2018) where in no one out of ten respondents passed the Periodic Test in the first quarter. There were four students who received the highest score of 18 raw points with a percentage of 36. On the other side, three of them received the lowest scores who each scored a raw score of 16 and a percentage of 32. In the Second Quarter, eight out of ten respondents passed the Periodic test. One has a raw score of 40 with an 80 percent passing rate, followed by four students with a raw score of 39 with a 78 percent passing rate. Thus, there was an increase in the scores from first quarter to second quarter.

Table 3
Test of Difference Between the Scores in the Pre-test and Post-test of Grade 9 Students in Araling Panlipunan

Aspects	Test Scores		Computed T	Critical T	Decision	Interpretation
Quarter 1	Pre	23.50	2.321	0.996	Reject H_0	Significant
	Post	36.57				
Quarter 2	Pre	22.80	2.667	0.996	Reject H_0	Significant
	Post	37.10				
Quarter 3	Pre	24.00	2.288	0.996	Reject H_0	Significant
	Post	36.88				

Table 3 shows the difference between the pre-test and post-test performance of Grade 9 students. In the first quarter, there is significant difference between the pre-test and post-test performance at 0.01 level of significance since t computed is greater than critical t-value. Thus, the learning modular approach is effective in improving the performance of students in Araling Panlipunan. In the second and third quarter, results also show that there is significant difference

between the pre-test and post-test performance at 0.01 level of significance since t computed is greater than critical t -value. Likewise, the performance of Grade 9 students in Araling Panlipunan was improve using the learning modular approach. According to Macarandan (2014), the students find the module interesting and moderately difficult. They learned much from the module and can work with it with teacher as facilitator and instructor. They had ease in receiving the instruction, interested and motivated to learn the subject, and gained significant learning using the module.

IV. Conclusion

The post-test performance of the students is 36.57 which is described as "Excellent" in the first quarter. While it increases in the second quarter with an average score of 37.10 (Excellent) and decrease in third quarter with a score of 36.88 (Good). The change in score is less than one point. More than half (54%) of the respondents have scores between 17-24 points interpreted as Good in Araling Panlipunan. This implies that one of every 20 students is likely to have scores 33-40 points. In the first quarter, there is significant difference between the pre-test and post-test performance at 0.01 level of significance since t computed is greater than critical t -value. The learning modular approach is effective in improving the performance of students in Araling Panlipunan. In the third quarter, 89% of the students performed "Excellent" in the subject meaning 9 of 10 respondents are likely to have scores in between 33-40 points. Thus, the performance of Grade 9 students in Araling Panlipunan was improve using the learning modular approach.

V. Recommendations

1. The effectiveness of modular learning approach to other subjects other than Aralaing Panlipunan is recommended as similar study.
2. The study may be done to other schools outside the province implementing modular learning approach as confirmatory study.
3. A comparable study is recommended comparing effectiveness of modular learning approach between two different schools.

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