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Simulation Games Techniques and Lecture Method in Teaching Araling Panlipunan

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Abstract – *This study determined the effect of simulation games techniques and lecture method on the academic performance in Araling Panlipunan of Grade 8 students of Eduardo Cojuangco National Vocational High School. It employed experimental research design. In gathering the data, a researcher-made achievement test (pre-test and post-test) was given to the respondents. Frequency, descriptive statistics and analysis of covariance were used to treat the data gathered.Results showed that post-test mean scores shows a strong evidence that there was improvement in the academic performance of students taught in simulation games techniques compared to lecture method. Furthermore, results showed the significant effect of performances of student taught with simulation games technique is better than those taught with lecture method. In addition, results showed that simulation games techniques has significant positive effects on the academic performance of students in Araling Panlipunan. Based on the results, the researcher recommends that the Araling Panlipunan teacher should welcome the use of Simulation games technique in the teaching-learning of Araling Panlipunan in our schools; school administrators should provide contextualized, indigenized and localized games to facilitate meaningful learning in school; school systems must conduct training-workshops, benchmarking summit, institutional building and mentoring to improve and hone the skills of teachers in using and developing games and simulations in the teaching and learning process; furthermore, research is hereby recommended that may look into different variables on the effectiveness of simulation games techniques in teaching Araling Panlipunan.*

Keywords – *Simulation Games Techniques, lecture*

INTRODUCTION

Social studies is one of the core subjects in the school curriculum. The subject is a discipline that can be used in solving problem of relationship and interaction in man's dynamic environment [1]. Social studies as a subject must be centered on innovative methods and techniques to meet the individual needs of learners in a classroom setting characterized by multiple level of ability, skills, attitudes, behaviors, interest, emotion, social and physical development. Considering the importance of Social studies, teachers of Social studies at all level of education need to be familiar with the content and methods of teaching the subject in order to interpret the content of the subject correctly and encourage its learning.

At present, students often consider Social studies to be dull and boring [2]. Not only do students perceived Social studies to be dull, but they also fail to see nothing good of Social studies in their everyday living. One may ask, why all these? The simple answer to that questions is either that the content of Social studies is boring, dull and uninteresting or that the instructional methods used by teachers in Social studies classroom interaction do not either inspire or engage the students actively in learning Social studies concepts.

Therefore, Social studies as an inter-discipline subject should be taught with a wide spectrum of instructional techniques that will enhance active participation of students in the teaching and learning process. It is only when Social studies instructional activities are dominated by the students that they will be able to think critically about their own assumptions and about the world they live, so that they will no longer be contended to accept their lot blindly but can learn ways of contributing towards changes.

Brush[3] noted that at present, social awareness and social understanding in Social studies are still to be developed, students still consider either to take for granted what their teachers offers or reject it out of hand probably as a result of wrongly application of instructional methods by Social studies teachers in teaching and learning processes. According to Shaughnessy and Hart[29], it is the teachers who is the key to what Social studies will be for the students. Instruction tends to be dominated by the lecture, textbook or assignment .and Social studies does not inspire students to learn.

Adoke [4] explained that teachers tend to use only one teaching style day after day, which denies students the opportunity of a variety of teaching methods. Explaining further, teachers often rely solely on lecture method, assignment and traditional tests as methods of teaching and learning. However, researches findings have revealed that students have more interest in a topic when a variety of teaching methods and techniques are implemented.

The ability to use various instructional methods for classroom interactions is often neglected by educators thereby hindering effective implementation of Social studies curriculum content. Teachers tend to have students participate in instructional activities that do not encourage critical thinking but instead encourage rote memorization of names, dates, and places. In addition, Webster,et.al [5] explained the common preoccupation with having student's history textbook recitations and lecture method does little to build capacity to think historically. In the same Paz [6] observed that teachers need to connect the content to the individual interest of the students, thus increasing students' interest in the content and actively engaging learners in the learning process. This implies application of a variety instructional methods that help engage students in the learning process. Some examples of engaging instructional methods includes simulation games self-directed learning, cooperative learning, role playing, and technology.

Many educators supporting the effectiveness of simulation games self-directed learning strategy is the method in teaching and learning situations which involves getting students to unleash their imaginative and intuitive capacities thought learning. Therefore, simulation game techniques are capable of promoting maximum interaction between and among social studies students to enhance efficient decision making while discussing and analyzing social issue.

Simulations are instructional scenarios where the learner is placed in a "world" defined by the teacher. They represent a reality within which students interact. The teacher controls the parameters of this "world" and uses it to achieve the desired instructional results. Students experience the reality of the scenario and gather meaning from it. A simulation is a form of experiential learning. It is a strategy that fits well with the principles of Student-Centered and constructivist learning and teaching. Simulations take a number of forms. They may contain elements of a game , role-play, or an activity that acts as a metaphor. Simulations are characterized by their non- linear nature and by then controlled ambiguity within which students make decisions. The inventiveness and commitment of the participants usually determines the success of a simulation. When students use a model of behavior to gain a better understanding of that behavior to gain a better understanding of that behavior, they are doing simulation.

Simulation techniques in learning are both a methodology for teaching/facilitating and an instructional design model. It uses games, simulations and game-like activities to facilitate the learning process. At the same time, it is a model that focuses on how the learning is orchestrated. It pays close attention to the learning environment, both physical and emotional.

It is believed that involving learner in the teaching and learning via inquiry and simulation teaching techniques in Social studies will make teaching and learning more interesting, make the classroom environment lively, arouse the interest of the learners and sustained their interest and attention throughout the teaching and learning period. With the foregoing ideas and knowledge about simulation games techniques, the researcher ventured into a study to find out if there is a significant difference between the effect of simulation games techniques and lecture method on the academic performance of the Grade 8 students of Eduardo Cojuangco National Vocational High School.

CONCEPTUAL FRAMEWORK

The framework shows how the study was undertaken. The day used in this study was obtained from three sources: students' profile such as sex, age, grades in AP, parents' educational attainment, parents' income and availability of educational materials at home, scores from a pre-test given before the session and scores from a post-test undertaken at the end of the 4th quarter to measure the effectiveness of the teaching method employed in the study.

The research study likes to see the relative effectiveness of the lecture method as compared to the simulation games techniques as measured by the pre-test and post-test.

The whole study concepts and results were used as basis for the proposed plan of action for the enhancement of the teaching -learning process.

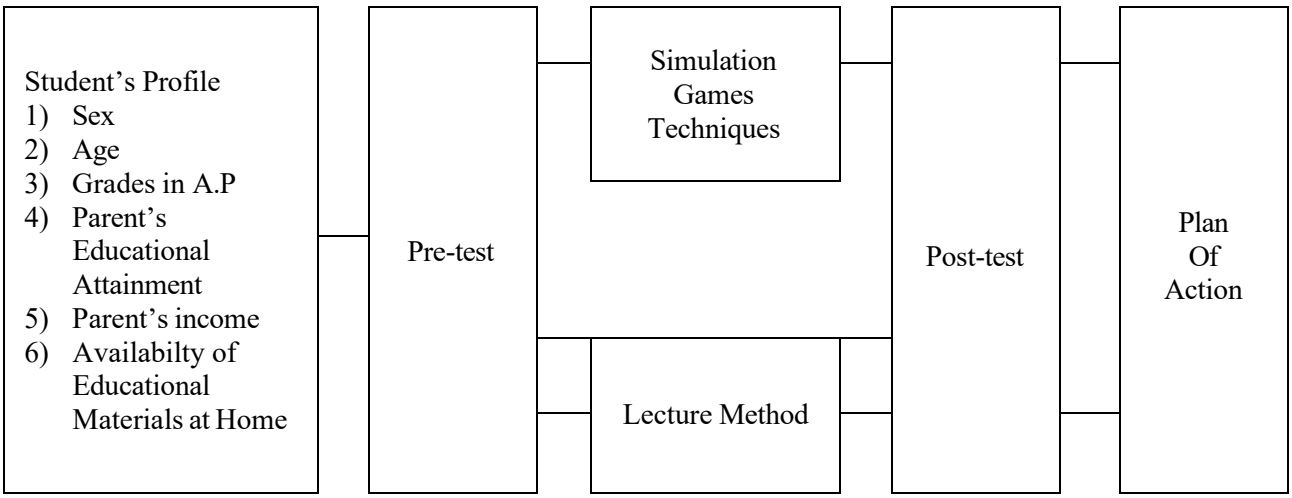


Figure 1: Research Paradigm

OBJECTIVES OF THE STUDY

This study is purposively conducted to determine the effect of simulation games techniques and lecture method on the academic performance in Araling Panlipunan of Grade 8 students of Eduardo Cojuangco National Vocational High School, school year 2018-2019.Specifically, it sought answers to the following questions: (a) What is the profile of the students for those who are exposed to simulation-games techniques and lecture method as to:1.1.sex; 1.2 age; 1.3.grades in Araling Panlipunan ; 1.4.parent's educational attainment; 1.5.parent's income; 1.6. availability of educational materials at home .(b) What is the academic performance of the students in Araling Panlipunan when exposed to simulation games techniques and lecture method in the following (1) pre-test score, and (2) post-test score? (c) Is there a significant difference between the academic performance in Araling Panlipunan of students taught with simulation games techniques and lecture method? (d) What is the plan of action that should be recommended in the light of the findings of this study? (e) Is there a sigificant difference between the pre-test and post-test score of students taught with simulation games techniques and lecture method?.

MATERIALS AND METHODS

Research Design

The Experimental Research Design (pre-test-post-test design) was used in this study to determine determine the effect of simulation games techniques and lecture method on the academic performance in Araling Panlipunan of Grade 8 students of Eduardo Cojuangco National Vocational High School, school year 2018-2019.

The experimental group was exposed to Simulation Games Techniques while the control group was taught by lecture method.

Samples of the Study

The respondents of this study were the first section from Grade 8 in Eduardo Cojuangco National Vocational High School. The sample of the study will be divided into two groups so that the experimental group consisted of 25 students who were exposed to simulation games techniques, on the other hand, the control group which consists of 25 students using lecture method. In this study, random sampling was employed wherein the researcher divides the class into two groups: the control group and experimental group. The control group will be taught using lecture method while the experimental group will be taught using simulation games techniques. The students that serve as the respondent of the study are from the first section in Grade 8 of Eduardo Cojuangco National Vocational High School.

Data Gathering Instrument and Procedures

A permit to conduct the study was secured from the office of the Schools Division Superintendent, Tarlac Province. Finally, the researcher secured the permission of the Principal of Eduardo Cojuangco National Vocational High School to conduct her study.

Then, the pre-test is administered to the two groups at the beginning of the experiment. A post- test (same in the pre-test) was conducted to both groups after 24 days to determine the academic performance of the students.

RESULTS AND DISCUSSION

Profile of the Respondents

The table 1 shows the profile of the respondents exposed in both methods in terms of sex, age, grades in Araling Panlipunan, parent's educational attainment, parent's income, and availability of educational materials.

As to Lecture Method

On Sex. As shown in the table 1, majority of the respondents are female with a frequency of 14 or 56% while male students have a frequency of 11 equivalent to 44 %. It simply shows that majority of the students are female.

On Age. As to age, majority of the students are 14 years old with a frequency of 24 or 96 %.

On Grades in Araling Panlipunan. Student whose grades range from 86-90 posted the highest frequency which is equivalent to 13 or 52%. While grades that ranges from 75-80 got the lowest frequency equivalent to 2 or 8 %. The result is expected to be high

The data gathered were given to the statistician for thorough tabulation and analysis.

In this study, the achievement test (pre-test and post-test) was prepared by the researcher based on the on the Curriculum Guide in Araling Panlipunan 8 given by the Department of Education and from the Araling Panlipunan 8 module. Other items were taken from the Division Achievement test. A total of fifty (50) items constitute the achievement test.

Since the objective of the study is to determine the effect of simulation games techniques and lecture method on the academic performance in Araling Panlipunan of Grade 8 students, the researcher took into account all other factors which might affect the result of the study. The following were the factors considered: (1) Schedule of Araling Panlipunan Subject- both groups had their Araling Panlipunan classes in the morning as shown below: (a) Simulation Games Techniques-7:30-8:30; (b)Lecture Method- 8:40-9:40. (2) Lessons- the lessons were based on the Curriculum Guide in Araling Panlipunan 8 given by the Department of Education. (3).The researcher handles the subject in both groups.

Statistical Analysis of Data

To analyze the data gathered, descriptive statistics were used. Descriptive statistics including frequencies, percentages, and weighted means were employed to present and analyze the data gathered. For the first problem, frequency and percentage count were used. Furthermore, for problem number 2, descriptive statistics was used including the frequency and percentage count, mean, standard deviation, skewness, and kurtosis. Additionally, for problem number 3, was described using frequency and percentage count. Lastly, Analysis of covariance were also employed to analyze the data.

since the students belong to the first section. (Grades of students

On Parent's Educational Attainment. Majority of the parents are high school graduate with a frequency of 17 or 68 %, while there are 8 or 32 % of parents who finished graduate school studies.

On Parent's Income. The table shows that the income of the parents who ranged below 10,000 posted the highest frequency of 17 equivalent to 68 % while income ranged to 7,500 above resulted as the lowest frequency of 1 or 4 %. It only means that parents earned a fair or average income.

On the Availability of Educational Materials at Home. As viewed on the table1, television posted the highest frequency of twenty-three (23) or 34.3 % while the presence of educational games with a frequency of two (2) or 3 % posted as the lowest. This means that television is the prime source of information and knowledge by the students.

PROFILE OF THE RESPONDENTS

Table 1

Profile	Category	Lecture Method n=25		Simulation Method n=25	
		Frequency	Percentage	Frequency	Percentage
Sex	Male	11.0	44.0	10.0	40.0
	Female	14.0	56.0	15.0	60.0
Age	14	24.0	96.0	24.0	96.0
	15	1.0	4.0	1.0	4.0
Grades in Araling Panlipunan	75-80	2.0	8.0	0	0
	81-85	5.0	20.0	8.0	32.0
	86 - 90	13.0	52.0	9.0	36.0
	91-95	0	0.0	1.0	4.0
	Above 95	5.0	20.0	7.0	28.0
Parent's Educational Attainment	College Graduate	0	0.0	0	0.0
	High school Graduate	17	68.0	20	80.0
	Graduate School	8	32.0	5	20.0
Parent's Income	Below 10,000	17.0	68.0	16.0	64.0
	25000-50000	7.0	28.0	8.0	32.0
	75000 Above	1.0	4.0	1.0	4.0
Availability of Educational Materials at Home	Computer/laptop	9.0	13.4	16.0	16.0
	Books	16.0	23.9	24.0	24.0
	Internet	10.0	14.9	19.0	19.0
	Tablets	7.0	10.4	6.0	6.0
	Television	23.0	34.3	24.0	24.0
	Educational games	2.0	3.0	11.0	11.0

As to Simulaton-Games Techniques

On Sex. The table shows that majority of the students are female with a frequency of 15 or equivalent to 60 % while male students posted a frequency of 10 equivalent to 40 %. The result shows that majority of the students are female.

On Age. As to age, majority of the students are 14 years old with a frequency of 24 or 96 %.

On Grades in Araling Panlipunan. The table shows that students whose grades range from 86-90 got the highest frequency of 9 or 36 %. On the other hand, there is a frequency of one (1) or 4% who has a grade range from 91- 95. The results simply indicate that the

students performed well academically in Araling Panlipunan subject.

On Parent's Educational Attainment. As viewed on the table, majority of the parents are high school graduate with a frequency of 20 or 80 %, while there are 5 or 20 % of parents who finished graduate school studies.

On Parent's Income. The result shows that the income of the parents who ranged below 10,000 posted the highest frequency of 16 equivalent to 64 % while income ranged to 7,500 above posted as the lowest frequency of 1 or 4 %. It only means that parents earned a fair or average income.

On the Availability of Educational Materials. The result shows that books and television posted the highest frequency of twenty-four (24) equivalent to 24 %. On the other hand, the use of electronic gadgets like tablets posted the lowest frequency of six (6) equivalent to 6 %. This indicates that the primary source of information by the students are the books and television.

Academic Performance of Students in Araling Panlipunan

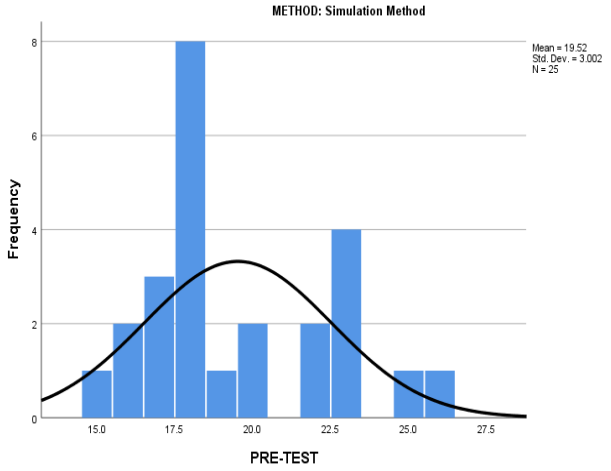
The table 2 presents the descriptive statistics of the scores of the students in Araling Panlipunan exposed to simulation games techniques and lecture method in terms of mean, standard deviation, skewness, standard error, and kurtosis.

Table 2

Descriptive Statistics of the Scores of the students in Araling Panlipunan Exposed to Simulation Games Techniques and Lecture Method

Statistic	Simulation Games Techniques		Lecture Method	
	Pre – test	Post – Test	Pre – test	Post – Test
Minimum	15	19	9	3
Maximum	26	48	22	34
Mean (SD)	19.52 (3.00)	39.16 (6.64)	16.04 (3.03)	18.40 (6.32)
Skewness	0.637[ns]	-1.264*	-0.139 [ns]	-0.091 [ns]
Standard Error	0.464	0.464	0.464	0.464
Kurtosis	-0.636 [ns]	1.988*	0.066 [ns]	1.415 [ns]
Standard Error	0.902	0.902	0.902	0.902

[ns]Not Significantly skewed/mesokurtic
* Significantly skewed/platykurtic/leptokurtic



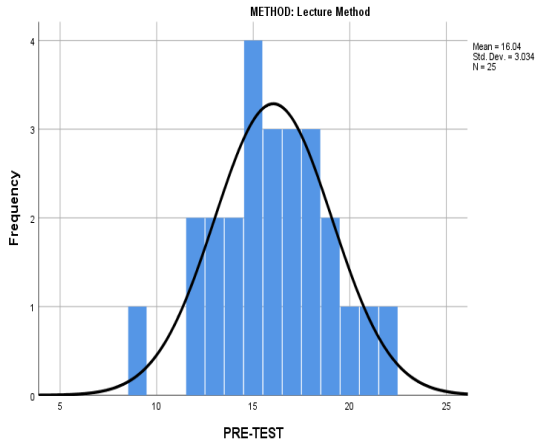


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Figure 1. Histogram of the Pre-test Scores of the students in Araling Panlipunan Exposed to Simulation Games \ Techniques and Lecture Method

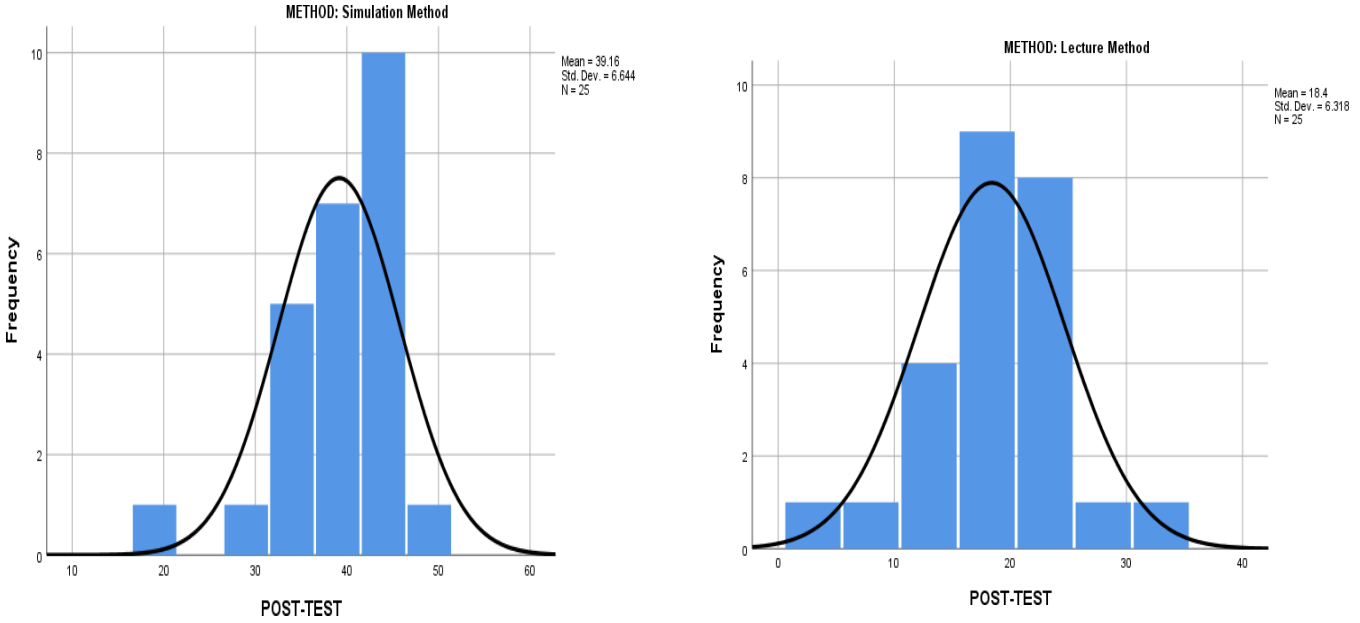

Figure 2. Histogram of the Post-test Scores of the students in Araling Panlipunan Exposed to Simulation Games Techniques and Lecture Method

Pre-test Scores of Students Exposed in Both Techniques

As seen on the table, the simulation games techniques group obtained a minimum score of fifteen (15) and maximum score of twenty-six (26) which is higher than the minimum and maximum scores observed in lecture method group (9, 22). The result in the pre-test scores would be expected to be low since students were not taught anything before the test. Low scores indicate that the scores attained is not closed to the mean.

Academic Score of Students in Araling Panlipunan

The table 3 reveals the performance level of the students in Araling Panlipunan exposed to simulation games techniques and lecture method.

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Table 3

Performance Level of the students in Araling Panlipunan Exposed to Simulation Games Techniques and Lecture Method

Description	Score	Simulation Games Techniques n=25				Lecture Method n=25			
		Pre – Test		Post – Test		Pre – Test		Post – Test	
		f	%	f	%	f	%	f	%
Very High	41 – 50	0	0.0	13	52.0	0	0.0	0	0.0
High	31 – 40	0	0.0	10	40.0	0	0.0	1	4.0
Average	21 – 30	8	32.0	1	4.0	2	8.0	9	36.0
Fair	11 – 20	17	68.0	1	4.0	22	88.0	13	52.0
Low	0 – 10	0	0.0	0	0.0	1	4.0	2	8.0

From Table 3, It can be gleaned from the Pre-test result that eight (8) students or 32 % have an average level of performance, seventeen (17) students or 68 % are described as fair in their level of performance. There are no students who got low, high, and very high level of performance. This clearly implies that students have little knowledge or nothing about the subject or curriculum.

Meanwhile, for the post-test, thirteen (13) or 52 % students acquired very high level of performance, ten (10) or 40% students have high level of performance, one (1) or 4% attained an average level of performance, one (1) or 4% student got a fair level of performance. No student achieved low level of performance.

The result implies that the pre-test scores of students are improved based on the positive change showed in their post-test scores. Bello[7] stresses that involving learners in the teaching and learning process via inquiry and simulation games techniques will make teaching-learning more interesting, arouse the interest of the learners and sustained their interest and attention throughout the teaching and learning period.

Academic Performance of Students in Araling Panlipunan taught in Lecture Method

As presented on table 3, as for the level of academic performance of students taught in lecture method, the data reveal that, for the pre-test, two (2) or 8% students attained average level of performance, twenty-two (22) or 88.0 % students acquired fair level of performance, one (1) or 4% student got low level of performance. No student attained high and very high level of performance.

On the other hand, for the post-test, one (1) or 4% student gained a high level of performance, nine (9) or 36% have attained average level of performance, thirteen (13) or 52% students have achieved fair level of performance, two (2) students or 8% got a low level of performance.

The result indicates that the scores of the students exposed to lecture method did not increase opposite of its counterpart, which is the simulation games techniques.

Corpuz[8] cited that lecturing to multiple students at once does not allow the instructor to push each learner to the limit of his or her knowledge, while an online setting allows for the system to individually challenge each learner to use the knowledge she or he possesses and apply it to the task-at-hand. It means to say that students can actively participate if they are given various ways to learn not just the usual or traditional way of revealing the lesson or answer to questions in the discussion. Basically, teacher-centered teaching methodologies are considered obsolete; a big burden with little impact on the learning development of the child.

DIFFERENCE BETWEEN THE ACADEMIC PERFORMANCE IN ARALING PANLIPUNAN OF STUDENTS TAUGHT WITH SIMULATION GAMES AND LECTURE METHOD

Table 4 presents the difference between the post-test mean academic performance of the simulation games techniques and lecture method.

Table 4

Difference Between the Academic Performance in Araling Panlipunan of students taught with Simulation Games Techniques and Lecture Method

Method	Post Test Mean Score[a]	fc	Sig.
Lecture Method	19.493	**81.610****	**p<0.001**
Simulation Method	38.067		

[a]Covariates appearing in the model are evaluated at the following values: Pre – test score = 17.78.
**Significant at 1% level

As viewed on the table 4, the post-test mean academic performance of the simulation game techniques group is 38.06 and that of the lecture group was 19.49. This implies that the students taught with simulation games techniques had higher mean academic performance than their counterparts taught with lecture method.

There is a significant difference in the Post test mean score of the student students exposed to Simulation Games and Lecture Method based on the fc = 81.610 with an associated significant value (p<0.001) lower the level of significance (.05). Thus, the null hypothesis is rejected.

Results from the study shows that significant effect of performances of student taught with simulation games technique which is better than those taught with lecture method. Simulation games technique has significant positive impact on students' academic performance in Araling Panlipunan at Eduardo Cojuangco National Vocational High School. The findings of this study corroborated that Pasin[9] examined the effect of simulation games technique on students academic performance and found that simulation games technique was more effective in comparison to other teaching techniques of teaching especially the teacher-centered approaches.

Proposed Plan of Action

This plan of action is proposed based on the findings of the study. The general results came out that the use of games and simulation techniques enhanced students' academic performance in Araling Panlipunan. Thus, academic performance is dependent on the method of instruction adopted.

Areas of Concern/ Learning Competencies	**Strategies**	**Activities**	**Means of Verification**
Nasusuri ang mahahalagang pangyayaring naganap sa Unang Digmaang Pandaigdig AP8AKD-IVb-2	Constructivism; Socratic Method; Review and intervention for small group and whole group	Peer Teaching; Remediation; Use of timeline; Facts Storming;	Quiz; recitation; hand-outs; Compilations of modules

Nasusuri ang mga dahilan na nagbigay-daan sa Ikalawang Digmaang Pandaidig. AP8AKD-IVe-5	Integration of subject matter across the curriculum; Provide activities that are applicable in real life situations.	Tutorial classes; Story Map;	Attendance sheet; Hand-outs; Compilations of Summary of Lessons
Nasusuri ang mga ideolohiyang politikal at ekonomiko sa hamon ng estabilisadong institusyon ng lipunan. AP8AKD-IVi-9	Divide students into groups to work on shared areas of need. Simulation/ Role-play on forms of government.	The use of Graphic organizers; Video Clips; powerful presentation; simulations.	Quiz; recitation; hand-outs
Natataya ang epekto ng mga ideolohiya, ng Cold War at ng Neo-kolonyalismo sa iba't ibang bahagi ng daigdig. AP8AKD-IVi-10	Contextualization of lesson so students can relate to the topic. Reflection activities; Apply localization of subject matter to learners to reach out to the needs of the community.	Use of media and power point presentation;	Research Paper; recitation; hand-outs
Nasusuri ang bahaging ginampanan ng mga pandaidigang organisasyon sa pagsusulong ng pandaigdigang kapayapaan, pagkakaisa, pagtutulungan, at kaunlaran. AP8AKDIVi-11	Differentiated instruction such as role-play, talk show, newscasting, singing, dancing, poster making, use of pictures; video clip	Peer learning groups; learner's portfolio; Handouts comprising summary of lessons	Portfolio; Recitation; hand-outs

CONCLUSIONS

Based on the findings stated above, the following conclusions are drawn: (1) Most of the students in the first section of Eduardo Cojuangco National Vocational High School are female; young adolescents; most of the parents are high school graduates and they are earning average income and; the most available educational material is the television. (2) The post-test mean scores shows a strong evidence that there was improvement in the academic performance of students taught in simulation games techniques compared to lecture method. (3) The results provide empirical evidence that the use of Simulation games technique enhanced students' academic performance in Araling Panlipunan. The students taught using lecture method achieved less. Thus, academic performance is dependent on the method of instruction adopted which in turn would lead to high interest that will enhance meaningful learning and improved academic performance in Araling Panlipunan.

RECOMMENDATIONS

Based on the conclusions, the researcher recommends the following recommendations:

1. Araling Panlipunan teacher should welcome the use of Simulation games technique in the teaching-learning of Araling Panlipunan in our schools. This can be done by constantly exposing the learners to various games and simulations situations that are related to Araling Panlipunan concepts to be taught in the classroom.
2. School administrators should provide contextualized, indigenized and localized games to facilitate meaningful learning in school. This will enable the teacher to have access to them for better delivery of their lessons.

3. School systems may conduct training-workshops, benchmarking summit, institutional building and mentoring to improve and hone the skills of teachers in using and developing games and simulations in the teaching and learning process.
4. Furthermore, research is hereby recommended that may look into different variables on the effectiveness of simulation games techniques in teaching Araling Panlipunan.

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