

Effectiveness of Contextualized Simulation-Games Technique on Grade 10 Students' Performance in Araling Panlipunan

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Abstract

This study examines the effectiveness of contextualized simulation-games in enhancing the performance of Grade 10 students in Araling Panlipunan in the province of Samar during the school year 2024-2025. Given the challenges students face in understanding Araling Panlipunan, this research explores an innovative instructional strategy to improve engagement and learning outcomes. A quasi-experimental research design was employed, utilizing pre-test and post-test assessments to compare the performance of an experimental group exposed to simulation-games and a control group taught through traditional methods.

The study included a total of 70 respondents, with statistical analysis conducted using paired and independent sample t-tests. Results showed that while both groups demonstrated improvement, the experimental group exhibited a significantly higher increase in post-test scores. The paired samples t-test indicated a mean score increase of 18.057 for the experimental group compared to 7.600 for the control group. Furthermore, the independent sample t-test revealed a statistically significant difference in post-test scores ($p = 0.001$), confirming the effectiveness of contextualized simulation-games in improving students' comprehension and retention.

The study concludes that simulation-games create an engaging and interactive learning environment that enhances student performance in Araling Panlipunan. However, challenges such as technological limitations and time constraints were noted. It is recommended that educators integrate this strategy into their teaching practices, provide adequate resources, and undergo training to ensure its effective implementation. Further research is suggested to explore its long-term impact on students' critical thinking and problem-solving skills.

Keywords: Araling Panlipunan; Module Development; Simulation; Game Technique; Contextualized Simulation

1. Introduction

Araling Panlipunan is one of the fundamental subjects in the school curriculum, serving as a core component in the holistic development of learners. The subject's essence as a discipline can be used in explaining problems of association and interaction in man's dynamic environment of daily life (Castro, 2020). According to the Department of Education (DepEd), Araling Panlipunan plays a crucial role in promoting responsible citizenship and preparing learners to participate actively in nation-building. Moreover, it helps students understand social issues and the interplay of local and global events, enhancing their analytical skills and socio-political awareness (DepEd, 2019). By studying Araling Panlipunan, learners become more informed, empowered, and culturally sensitive members of society. However, learners perceive Araling Panlipunan as one of the difficult subjects nowadays due to its intricacy thus they are inclined to overlook it and categorize it as a minor subject (Tomines, et al., 2021).

As a result, based on the National Achievement Test results for the 2017-2018 school year in the Calbayog Division Region VIII, only 5% of Grade 10 students achieved a high proficiency level in Araling Panlipunan (AP), while 42.45% were deemed proficient, and 53.55% did not meet the proficiency criteria in AP. This was also true in the following school year 2018-2019 National Achievement Test DepEd Region II in Cagayan Valley for grade 10 test takers on proficiency level in Araling Panlipunan (AP). It was found that only 0.1% of the examinees are highly proficient, while 10.93% are proficient and 89% of the examinees do not fall under the proficiency level in AP.

Therefore, there is a need for Araling Panlipunan to be taught with an extensive array of instructional methods that will boost students to partake in the teaching-learning process. As Pecson (2019) mentioned, that lesson should be presented in a meaningful and relevant context grounded by previous experiences and real-life conditions. One of the prominent instructional methods is simulation-game technique.

In line with this, the researcher crafted four modules with an integration of contextualized simulation-game techniques that will serve as the intervention of the study. Hence, the main objective of this study was to determine the effectiveness of contextualized simulation-game techniques on Grade 10 students' performance in Araling Panlipunan, during the School Year 2024-2025.

1.1 Objectives of the Study

This study determined the effectiveness of contextualized simulation-games technique on Grade 10 students' performance in Araling Panlipunan. Specifically, this study sought answers to the following:

1. Develop a contextualized simulation game module for grade 10 students.
2. Determine the pre-test and post-test means scores of the experimental group and control group.
3. Determine the significant difference between the pre-test and post-test means scores of the experimental group and control group.
4. Determine the significant difference between the post-test means scores of the two groups respondents
5. Proposed a recommendation based on the findings of the studies

2. Methodology

This chapter presents and discusses the methods which were used in the conduct of this study. This chapter specifically includes research design, instrumentation, validation of instruments, sampling procedures, data-gathering procedures, statistical treatment of data, and ethical considerations.

2.1 Research Design

This study employed a Developmental Research Design comprising two main phases: (1) the Formative Phase, which involved the design and validation of contextualized simulation-game-based modules; and (2) the Evaluative Phase, which applied a Quasi-Experimental Design to determine the effectiveness of the developed modules on student performance in Araling Panlipunan.

Formative Phase: Design and Validation of Instructional Material

The formative phase followed a systematic process of instructional design, development, and validation. This phase was anchored on the principles of developmental research, which emphasize the creation of contextually relevant and pedagogically sound learning interventions. The simulation-game-based module was developed based on curriculum standards, identified learner needs, and local contextual realities. It underwent expert validation using the Content Validation Index (CVI), with inputs from three Master Teachers handling Araling Panlipunan. Revisions were made based on the validators' recommendations. The module focused on environmental issues, disaster risk reduction, and community resilience, which aligned with the third quarter coverage of the Grade 10 curriculum.

Evaluative Phase: Quasi-Experimental Testing of Effectiveness

The evaluative phase employed a Quasi-Experimental Design to assess the effectiveness of the validated instructional module. Specifically, the study used an equivalent groups pretest-posttest design, comparing the performance of students in an experimental group (who used the simulation-game-based module) with those in a control group (who received traditional instruction). Both groups completed pre- and post-tests on the same content. This design allowed the researcher to evaluate the instructional impact of the developed material in real classroom settings where random assignment was not feasible. The evaluation also considered contextual factors such as age, sex, and family income to explore their influence on learning outcomes.

By integrating formative development and rigorous summative evaluation, the two-phase design ensured both the instructional quality and empirical effectiveness of the contextualized module.

2.2 Sampling and Data Collection Approach

This study employed a random sampling technique to select participants from the target population. The population consisted of two sections under which the researcher handled classes of Grade 10 students enrolled in Araling Panlipunan during the school year 2024-2025 in the province of Samar. Using a coin toss to select between two sections who will serve as the experimental and control group. The experimental group, which received the intervention (contextualized simulation-games), while the other served as the control group, which continued with traditional teaching methods. Both groups are heterogenous learners, have an average age of 16 and come from low-income families. The only difference is that there are more females in the experimental group than in the control group. This division facilitated a robust comparison between the two groups to measure the effectiveness of the intervention. To ensure comparability between

groups and maintain statistical rigor, a total of 70 students (35 for the experimental group and 35 for the control group) were randomly selected from the eligible students. Inclusion criteria require students to be officially enrolled in Grade 10 Araling Panlipunan, have regular attendance of at least 80%, and provide consent to participate in the study.

Meanwhile, students with excessive absences, and those who declined participation or lacked parental/guardian consent were excluded. After applying these criteria, a random selection process was conducted to ensure proper group assignment, with 35 students in the experimental group receiving the contextualized simulation-games intervention and 35 students in the control group following traditional teaching methods. This approach minimized selection bias and allowed for a valid statistical comparison of the intervention's effectiveness.

2.3 Validation of Research Instrument

The developed contextualized simulation-games were validated in terms of its content and its reliability through a Content Validation Index by three Master Teachers handling Araling Panlipunan and Internal Consistency Method using Kuder-Richardson Formula 20, respectively.

The Content Validation Index was conducted through a thorough inspection of the printed materials of modules, activities and questionnaires by three Master Teachers. A series of clarifications took place and once queries were satisfactorily answered, revisions were made based on the validators' recommendations. All the Masters Teachers who validated the modules, activities and questionnaires are all graduates of master's in arts in Education major in management and have already been in service for an average of seventeen years. When the approved CVI was obtained and incorporated, the developed contextualized simulation-games were prepared and finalized for one-time testing using KR-20 among Grade 10 students in the province of Samar. The test was done during the class schedule of Araling Panlipunan of each section that consumed two meetings. This was due to the students being able to only do two tests per meeting at the given class time.

Table 1. Pilot Test Results for Reliability of the Developed Contextualized Simulation Games

Module	Number of Items	KR-20 Coefficient	Reliability
<u>Module 1:</u> Lakbay ng Kaalaman	20	0.82	Good
<u>Module 2:</u> Bigo Card	20	0.76	Acceptable
<u>Module 3:</u> Lights! Camera! Action!	20	0.88	Good
<u>Module 4:</u> Binbini o Ginoo	20	0.85	Good
Overall	80	0.828	Good

2.4 Statistical Treatment of Data

The data collected in this study were analyzed using appropriate statistical tools to ensure accurate interpretation of the results. The following statistical treatments were applied:

Mean. Used in this study as a measure of the central tendency to determine the average performance of students before and after the intervention.

Standard Deviation. These were used to determine the pre-test and post-test performance of the experimental and control groups.

Kolmogorov-Smirnov Test. This was used to test the normality of the pre-test and post-test scores of both groups, ensuring the validity of using parametric statistical tests.

Paired Samples t-Test. This was applied to assess whether there was a significant difference between the pre-test and post-test scores within each group (experimental and control), determining the effectiveness of the intervention.

Independent Samples t-Test. This was used to compare the post-test scores between the experimental and control groups, determining whether the contextualized simulation-games technique had a statistically significant effect on student performance.

Levene's Test for Equality of Variances. This was conducted to check for homogeneity of variances between the experimental and control groups before performing the independent samples t-test.

The hypotheses of this study were tested at a 0.05 level of significance, applying two-tailed hypothesis testing where applicable. These statistical tools ensured the reliability and validity of the study's findings on the effectiveness of contextualized simulation-games in improving students' academic performance in Araling Panlipunan.

2.5 Ethical Consideration

The ethical concerns which were considered and observed in this current research focused on the student-respondents' privacy, confidentiality of information, and legitimacy of the conduct of the study. For the legitimacy of the conduct of the study, the researcher secured the approval of the School Principal or Head Teacher or Teacher-in-Charge of the school. The approval of this was important because it was the starting point before this current research was conducted.

When the approval was given, the researcher proceeded with securing the consent of the student-respondents to ensure that they voluntarily participated in answering the questionnaires. Part of this is respecting their privacy and thus, no personal information was divulged and all the answers of the teacher-respondents during the study were considered privileged communication between the researcher, the teacher-respondents, the research adviser, and the statistical expert. Finally, a copy of the manuscript was submitted to the Ethics Review Committee (ERC) to further ensure the observance of the ethical considerations of this study.

3. Findings and Discussion

This chapter presents the results and discussion regarding the effectiveness of contextualized simulation-games technique on Grade 10 students' performance in Araling Panlipunan. Data shows that there is significant improvement in students' performance in Araling Panlipunan using the intervention.

Contextualized Simulation-game Module

Phase I: Formative Phase

The first phase of the study focused on the development and validation of contextualized simulation-game modules for Araling Panlipunan. This formative phase aimed to create engaging and curriculum-based activities that would foster meaningful learning experiences for Grade 10 students.

Phase I of this study focused on the formative development of contextualized simulation-game modules for Grade 10 Araling Panlipunan. The goal was to design innovative learning materials that align with the curriculum while incorporating game-based strategies to enhance student participation and understanding. This phase involved identifying learning competencies, crafting simulation-game activities, and validating the modules with the help of experts. The results presented in this section include a detailed description of the developed modules, their structure, instructional content, and required materials. Each module was created to simulate real-world scenarios and foster active engagement among learners. Through collaborative activities such as “Lakbay ng Kaalaman,” “BI’GO Card,” “Lights, Camera, Action!” and “Binibini o Ginoo,” students were immersed in meaningful learning experiences tailored to local contexts. Feedback from initial implementation and expert review through Content Validation Index with a score of 1.0 in both relevance and clarity revealed that the modules were appropriate, engaging, and aligned with the intended learning outcomes. Furthermore, after the pilot testing, the Internal Consistency Method using Kuder-Richardson Formula 20 was used to determine the reliability of the developed contextualized simulation-games. The computed overall KR-20 value of 0.828 indicates good reliability. The formative phase successfully established a set of well-designed, contextualized instructional tools that laid the groundwork for the evaluative phase of the study.

Pre-test and Post-test means scores of the Experimental Group and Control Group

Phase II: Evaluation Phase

The second phase of the study focused on the evaluation of contextualized simulation-game modules for Araling Panlipunan. This phase is aimed at assessing the effectiveness of the validated instructional module with the use of different statistical treatment of data. Comparing the difference between post and pre-test means scores and standard deviation, and the post-test means scores of both groups provides a significant difference between the performance of experimental and control group.

Table 2. Pre-Test and Post Test Learning Performance of the Students in Araling Panlipunan

Group	n	Pretest		Post Test	
		Mean	SD	Mean	SD
Controlled	35	42.3429	8.82491	49.9429	10.03213
Experimental	35	38.9714	12.47936	57.0286	5.50660

The findings imply that students in the experimental group, despite starting with a lower mean pre-test score, demonstrated a significantly greater increase in post-test performance compared to the control

group. This suggests that the traditional method used in the control group may not have been as responsive to the learners' needs, particularly for those requiring more engaging or interactive approaches. The lower initial performance of the experimental group also indicates possible gaps in prior knowledge or motivation, which were effectively addressed through the intervention. The relatively small standard deviation in the experimental group's post-test scores further suggests that the intervention not only improved learning outcomes but also helped standardize understanding across students, reducing performance disparity. These patterns highlight that the conventional approach may not be adequately reaching all learners, and that integrating more contextualized, active learning strategies can serve as a diagnostic remedy for disengagement, inconsistent comprehension, or low retention often observed in traditional setups.

Castro (2020) found that students taught using simulation-games demonstrated significantly greater improvement in their academic performance compared to those taught through traditional lecture methods. This supports the findings of the current study, where the experimental group, which was exposed to contextualized simulation-games, showed a higher increase in post-test scores than the control group. Similarly, Lara (2019) emphasized that simulation-based learning enhances deeper engagement and improved knowledge retention, particularly among younger students. These findings align with the results of this study, suggesting that integrating simulation-games into the learning process can be a beneficial instructional strategy for improving student performance in Araling Panlipunan.

Difference between the Pre-test and Post-test means scores of the Experimental Group and Control Group

Table 3 presents the comparison between the pre-test and post-test mean scores of the experimental and control groups to determine whether the intervention had a significant effect on students' learning performance in Araling Panlipunan.

Table 3. Comparison of the Pre-Test and Post Test Mean Scores of the Students

Group	Means		Difference	t	p-value	Interpretation
	Pre-Test	Post Test				
Controlled	42.3429	49.9429	7.600	-3.733	0.001	S/Reject Ho
Experimental	38.9714	57.0286	18.057	-7.004	0.000	S/Reject Ho

Level of Significance is at 0.05, two-tail

The significantly greater gain in the experimental group suggests that the intervention not only enhanced learning outcomes but also addressed existing gaps in student understanding that the traditional method failed to resolve. The experimental group's lower pre-test mean indicates that students began with weaker prior knowledge, yet the intervention successfully facilitated deeper learning and retention. This performance shift serves as a diagnostic indicator that traditional approaches may lack the engagement or contextual relevance needed for struggling learners, while the applied strategy in the experimental group appears to offer a more responsive and inclusive learning experience. Furthermore, the stark difference in gains may point to a mismatch between conventional teaching styles and the actual learning preferences or cognitive processing styles of the students. The experimental group's improvement suggests that the intervention possibly incorporated more active, experiential, or student-centered elements, which helped

bridge the gap between instruction and understanding. This reveals that learners may benefit more from contextualized and interactive strategies, especially when dealing with subjects like Araling Panlipunan. Therefore, the findings serve as a diagnostic cue for educators and curriculum planners to consider integrating more dynamic approaches that cater to diverse learner needs.

McClintock (2020) emphasized that experiential learning strategies, such as simulations, promote higher-order thinking and deeper understanding of subject matter, making them an effective alternative to traditional lecture-based methods. Similarly, Hakeem (2021) found that students exposed to experiential learning environments demonstrated better comprehension and retention compared to those in conventional classroom settings. These findings align with the results of this study, where the experimental group, which utilized contextualized simulation-games, exhibited significantly greater improvement in post-test scores compared to the control group. This suggests that integrating simulation-based techniques into Araling Panlipunan instruction can be an effective approach to enhancing student learning and engagement. The results overall imply that while both teaching approaches contributed to student learning, the use of contextualized simulation-games had a more substantial impact on improving student performance compared to traditional teaching methods. This indicates that interactive and experiential learning strategies may be more effective in enhancing students' understanding and retention of Araling Panlipunan concepts.

Difference Between the Post Test Mean Scores of the Two Groups

Table 4 presents the comparison of post-test mean scores between the control and experimental groups to determine whether the use of contextualized simulation-games had a significant effect on student performance.

Table 4. Comparison of the Post-Test Mean Scores in Araling Panlipunan

Group	N	Mean	t	p-value	Interpretation
Controlled	35	49.9429	3.663	0.001	S/Reject Ho
Experimental	35	57.0286			

This significant gap in post-test performance serves as a diagnostic signal that the traditional instructional approach may not have been as effective in promoting deeper learning and long-term retention of concepts. The higher mean score in the experimental group suggests that the use of contextualized simulation-games may have supported better content integration, active participation, and critical thinking among learners. The results point to a possible disconnect between the teaching strategies commonly used in Araling Panlipunan and the actual learning needs or preferences of students. Moreover, the findings highlight the potential of game-based, contextualized instruction in transforming passive learners into engaged participants, especially in a subject that often relies on memorization.

The diagnostic implications extend beyond performance scores; they suggest that the conventional approach may not be sufficiently responsive to students with varying learning styles, particularly visual, kinesthetic, and experiential learners who benefit from active engagement. The significant improvement in the experimental group also implies that traditional methods may contribute to cognitive overload or disengagement, while simulation-games may help reduce these by providing meaningful context and

scaffolding. Hence, if learning remains rooted in passive or one-size-fits-all methods, student performance may stagnate

Kreber (2021) emphasized that experiential learning, such as simulation-games, encourages higher-order thinking and self-directed learning, which can lead to significant improvements in academic outcomes. Similarly, Makri (2022) found that simulations promote deep learning, problem-solving skills, and conceptual understanding, which help students retain information more effectively. These findings coincide with the results of the current study, where the experimental group exposed to contextualized simulation-games exhibited a higher increase in post-test scores compared to the control group. This suggests that integrating simulation-based strategies in Araling Panlipunan can enhance student engagement and improve learning retention, making it a valuable tool for educators. These findings imply that the integration of contextualized simulation-games in Araling Panlipunan can significantly enhance student learning outcomes compared to traditional teaching methods. The higher post-test scores of the experimental group indicate that interactive and experiential learning approaches may lead to better comprehension and retention of concepts

Proposed a recommendation based on the findings of the studies

Based on the results of the study, the following were the proposed recommendations:

1. Teachers are encouraged to adopt contextualized simulation-games as part of their teaching strategies to boost student motivation, participation, and academic achievement, particularly in subjects like Araling Panlipunan.
2. The Department of Education should explore the integration of simulation-based learning techniques into the curriculum to modernize the delivery of social studies and other related disciplines.
3. Schools must ensure the availability of essential technological tools—such as computers, internet access, and educational software—to support the smooth implementation of simulation-based instruction.
4. Capacity-building programs should be provided to train teachers in designing and delivering game-based and contextualized lessons, equipping them with the skills to implement this innovative approach effectively.
5. Educators should combine simulation-games with other active learning strategies, such as project-based learning, inquiry-based instruction, and differentiated activities, to address varied learning needs and optimize student outcomes.
6. Simulation-game activities should be designed to include group tasks and reflective discussions to foster collaborative learning, critical thinking, and deeper engagement with historical and social concepts.
7. Future studies should investigate the long-term effects of contextualized simulation-games on academic performance, retention of knowledge, and development of higher-order thinking skills, as well as their applicability in other subject areas and educational levels.

4. Limitations

The current study determined the effectiveness of contextualized simulation-games technique on Grade 10 students' performance in Araling Panlipunan during the School Year 2024-2025 in the province of Samar. The researcher was then prompted to make use of the developmental research design as his main method of carrying out the study. Wherein, four modules were developed with an integration of contextualized simulation-game. The topics covered are environmental issues, disaster risk reduction, and community resilience. These are the covered topics because the study was conducted during the third quarter of the school year 2024-2025. Same as through the crafting of the questionnaires that only cover the mentioned topics.

The study focused on the effectiveness of contextualized simulation-games technique; and measured the differences between the pre-test and post-test results of the experimental and control groups. The research was therefore experimental in nature.

The respondents of the study comprised of two sections, a total of 70 Grade 10 students. The study also described the student-respondents' profiles in terms of their age, sex and family income. On the one hand, comparative analysis was conducted to determine the difference between the pre-test and post-test results of the experimental and control groups; and the challenges encountered by the researcher and student-respondents were technical difficulty with the use of laptops or television, over-stimulated responses of the learners during the activities and the interruption of class due to school activities, weather and irregular attendance of students. However, the study is limited to the current school year in its conduct as well as utilizing only two groups of respondents for its sources of data.

5. Conclusions

In conclusion, the study provides strong evidence that the use of contextualized simulation-game techniques in Araling Panlipunan significantly improves student learning outcomes. As such, this approach holds promise for transforming traditional classroom instruction into a more dynamic and impactful learning experience. In light of the study's findings and conclusions the following recommendations are proposed: (1) Araling Panlipunan educators are encouraged to integrate contextualized simulation-game modules into their teaching strategies. Teachers may use the developed module as a reference or model for designing similar interventions suited to other topics or learning areas; (2) Educational leaders should support the inclusion of game-based and experiential learning approaches in the curriculum by providing professional development and resources for teachers; (3) Subsequent studies could expand the scope of simulation-game techniques across different subjects and educational levels to validate and enrich the current findings; and (4) incorporating local culture, history, and realities into game-based modules, learning becomes more meaningful and relevant to students' lives.

Learning should be relevant and interactive because it enhances engagement, promotes deeper understanding, and fosters critical thinking skills. When learning is connected to students' lives and involves active participation, they are more likely to retain information and develop a genuine interest in the subject matter.

6. Appendix

The appendices attached include the SPSS results and the university's ethical clearance to conduct the research study.

1. Normality test

Test of Normality for Pre-Test and Post-Test Scores of Experimental and Control Groups

Group		Kolmogorov-Smirnov		
		Statistic	df	Sig.
Pre-Test	Experimental	0.117	38	0.200
	Control	0.134	36	0.099
Post-Test	Experimental	0.087	38	0.200
	Control	0.094	36	0.200

2. Pretest And Post Test Results of Experimental and Controlled Groups

Paired Samples Statistics					
		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	pre Exposed	38.9714	35	12.47936	2.10940
	post Exposed	57.0286	35	5.50660	.93079

Paired Samples Statistics					
		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	pre controlled	42.3429	35	8.82491	1.49168
	post controlled	49.9429	35	10.03213	1.69574

Paired Samples Correlations				
		N	Correlation	Sig.
Pair 1	pre Exposed & post Exposed	35	-.339	.046

3. Significant Difference Between Pretest and Posttest Results of Experimental Group

Experimental Group									
Paired Samples Test									
		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	pre Exposed - post Exposed	-18.05714	15.25266	2.57817	-23.29662	-12.81767	-7.004	34	.000

Paired Samples Correlations				
		N	Correlation	Sig.
Pair 1	pre controlled & post controlled	35	.189	.277

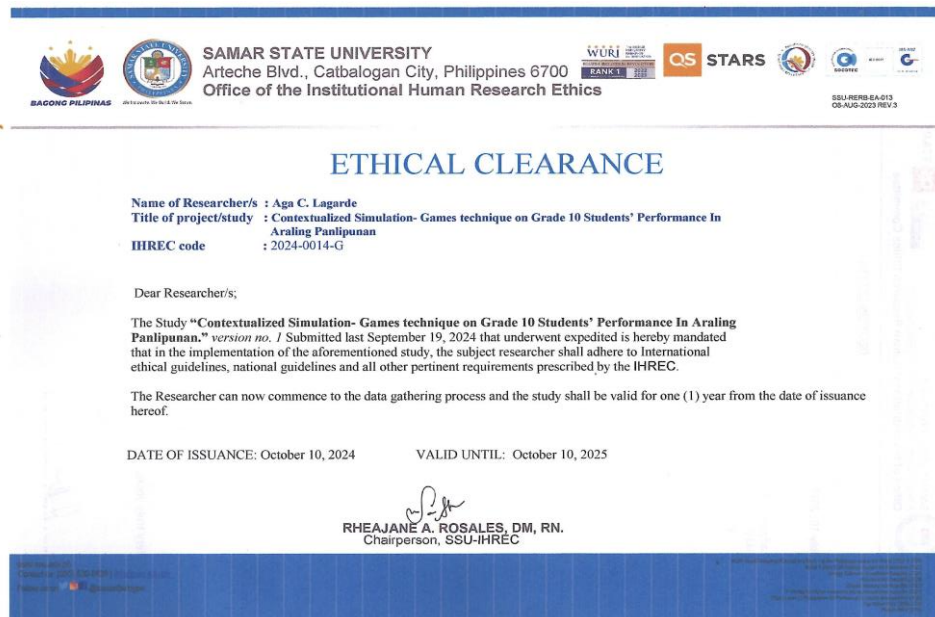
4. Significant Difference Between Pretest and Posttest Results of Controlled Group

Paired Samples Test									
		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	pre_controlled - post_controlled	-7.60000	12.04453	2.03590	-11.73744	-3.46256	-3.733	34	.001

5. Significant Difference in Post Test Mean Score of Experimental and Controlled Group

Group Statistics					
	GROUP	N	Mean	Std. Deviation	Std. Error Mean
Post Mean Scores	1.00	35	57.0286	5.50660	.93079
	2.00	35	49.9429	10.03213	1.69574

Independent Samples Test										
		Levene's Test for Equality of Variances		t-test for Equality of Means						
				F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
		Lower	Upper							
Post Mean Scores	Equal variances assumed	9.637	.003	3.663	68	.000	7.08571	1.93440	3.22568	10.94575
	Equal variances not assumed			3.663	52.783	.001	7.08571	1.93440	3.20543	10.96600



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Office of the Institutional Human Research Ethics

ETHICAL CLEARANCE

Name of Researcher/s : Aga C. Lagarde
Title of project/study : Contextualized Simulation- Games technique on Grade 10 Students' Performance In Araling Panlipunan
IHREC code : 2024-0014-G

Dear Researcher/s;

The Study "Contextualized Simulation- Games technique on Grade 10 Students' Performance In Araling Panlipunan," version no. 1 Submitted last September 19, 2024 that underwent expedited is hereby mandated that in the implementation of the aforementioned study, the subject researcher shall adhere to International ethical guidelines, national guidelines and all other pertinent requirements prescribed by the IHREC.

The Researcher can now commence to the data gathering process and the study shall be valid for one (1) year from the date of issuance hereof.

DATE OF ISSUANCE: October 10, 2024 VALID UNTIL: October 10, 2025

RHEAJANE A. ROSALES, DM, RN.
Chairperson, SSU-IHREC

7. Acknowledgements

The authors would like to thank the participants for their participation in the interview. We also thank the validators, reviewers, and grammar checker for providing suggestions and feedback, which improved the submitted journal.

8. Authors' Biography

The first author is a secondary school teacher under the Department of Education and a graduate student at Samar State University, while the second author is a graduate school professor teaching Social Studies subjects and the Director of the Samar State University-Samar Island Center for Good and Local Governance.

References

1. Association for Asian Studies. (2022). Teaching Southeast Asia Interactively: The ASEAN "Plus Three" Simulation. <https://www.asianstudies.org/publications/ea/archives/teaching-southeast-asia-interactively-the-asean-plus-three-simulation/>.
2. Bada, & Olusegun, S. (2015). Constructivism learning theory: A paradigm for teaching and learning. *IOSR Journal of Research & Method in Education*, 5(6), 66–70.
3. Bernardo, A. B. I. (2004). *Psychology of learning and instruction: Outcomes and strategies for effective teaching*. Lorimar Publishing.
4. Castro, Angela Mae (2020). Simulation Games Techniques and Lecture in Teaching Araling Panlipunan. *Asian Journal of Multidisciplinary Studies*. 3 (2).
5. Claiborn, W. L., & Lemberg, H. W. (2019). A simulated mental hospital as an undergraduate teaching device. *Teaching of Psychology*, 1, 38-40.
6. Corpuz, B. B., & Salandanan, G. G. (2006). *Principles of teaching 1*. Lorimar Publishing.

7. Crosbie-Burnett, M., & Eisen, M.. (2022). Simulated divorced and remarried families: An experiential teaching technique. *Family Relations*, 41, 54-58.
8. Ding, D., Guan, G. & Yinghui, Y. (2017). Game-based learning in tertiary education: A new learning experience for the Generation Z. *International Journal of Information and Education Technology*, 7(2), 148-152. doi: 10.18178/ijiet.2017.7.2.857.
9. Dorji, Tshewang (2022). The Effect of Simulation in Improving Secondary Students' Academic Performance. *International Journal of Social Learning*. 3 (1). 48-64.
10. Dorn, D. (2019). Simulation games: One more tool on the pedagogical shelf. *Teaching Sociology*, 17, 10-18.
11. Goldie, J. G. S. (2016). Connectivism: A knowledge learning theory for the digital age? *Medical Teacher*, 38(10), 1064–1069.
12. Goosen, K. R., Jensen, R., & Wells, R. (2021). Purpose and learning benefits of simulations: A design and development perspective. *Simulation & Gaming*, 32, 21-39.
13. Guo, Y. (2018). The application of social constructivism in collaborative learning. *Journal of Education and Learning*, 7(3), 109–118. <https://doi.org/10.5539/jel.v7n3p109>.
14. Hakeem, S. A. (2021). Effect of experiential learning in business statistics. *Journal of Education for Business*, 77, 95-98.
15. Haney, C., Banks, C., & Zimbardo, P. (2020). Interpersonal dynamics in a simulated prison. *International Journal of Criminology and Penology*, 1, 69-97.
16. Issa, Nour (2019). Assessing the Impact of Simulation Games on Education Operation Management and the Development of Pedagogical Effectiveness. *International Journal on Advances in Intelligent Systems*. 11 (3&4).
17. Jessup, M. M. (2021). Sociopoly: Life on the boardwalk. *Teaching Sociology*, 29, 102-109.
18. Keskin, N. O., & Metcalf, D. (2011). The current perspectives, theories and practices of Mobile learning. *Turkish Online Journal of Educational Technology*, 10(2), 202–208.
19. Khenissi, M. A., Essalmi, F., Jemni, M., & Kinshuk, D. (2015). Learner modeling using educational games: A review of the literature. *Smart Learning Environments*, 2(1), 1–16.
20. Kilgour, P., Reynaud, D., Northcote, M. T. & Shields, M. (2015). Role-playing as a tool to facilitate learning, self-reflection and social awareness in teacher education. *International Journal of Innovative Interdisciplinary Research*, 2(4), 8-20.
21. Kreber, C. (2021). Learning experientially through case studies? A conceptual analysis. *Teaching in Higher Education*, 6, 217- 228.
22. Lara, Ana (2019). Students' perception on the impact of competences on learning: An analysis with business simulations. *Computers in Human Behavior*. 101. 311-319.
23. Liao, Chen-Win (2023). Inquiry Practice Capability and Students' Learning Effectiveness Evaluation in Strategies of Integrating Virtual Reality into Vehicle Body Electrical System Comprehensive Maintenance and Repair Services Practice: A Case Study. *Electronics*. 12 (12).
24. LSE (2021). The use of games and simulations in higher education can improve students' cognitive and behavioral skills. <https://blogs.lse.ac.uk/impactofsocialsciences/2017/10/05/the-use-of-games-and-simulations-in-higher-education-can-improve-students-cognitive-and-behavioural-skills/>.
25. LR Portal. (2021). Deped LR Portal. <https://lrmds.deped.gov.ph/detail/16289>

26. Makri, Agoritsa (2022). The effect of games and simulations in higher education. European University Cyprus.
27. Makri, A. and Vlachopoulos, D. (2017). The effect of games and simulations in higher education. *International Journal of Educational Technology in Higher Education*. 22.
28. McClintock, C. (2020). Creating communities of practice for experiential learning in policy studies. In P. A. Ralston, R. M. Lerner, A. K. Mullis, C. B. Simerly, & J. B. Murray (Eds.).
29. Morin, Jennifer (2019). Educating business integrators with a computer-based simulation game in the flipped classroom. *Journal of Education for Business*. 95 (2).
30. National Achievement Test - DepEd RO2. region2.deped.gov.ph. (2019, May 24). Retrieved November 19, 2022, from <https://region2.deped.gov.ph/wp-content/uploads/2019/05/2018-NATIONAL-ACHIEVEMENT-TEST-NAT-610-12-RESULTS-AND-ANALYSIS-.pdf>
31. Naranayan, E. (2019). Perceptions of Simulation Games and The Role They Play in Creating and Enterprising and Employable Graduate. *International Journal of Education, Psychology and Counselling*. 4 (30). 179-196.
32. Ofiaza, E. S. (2023). The Effect of Teacher's Teaching Style in Araling Panlipunan on Student's Motivation of Grade 8 Students in Sta. Cruz South High School. *International Journal of Multidisciplinary: Applied Business and Education Research*. <https://ijmaberjournal.org/index.php/ijmaber/article/download/912/509/>
33. Ogheneakoke, C. E., Obro, S., & Benike, J. (2019, November 1). In Search of a More Effective Strategy: Using Simulation Games Instructional Strategy for the Teaching and Learning of Social Studies in Secondary School. <http://www.iajiss.org> . Retrieved October 29, 2022, from <https://files.eric.ed.gov/fulltext/EJ1215094.pdf>
34. Osmond, M. W. (2019). The use of simulation games in teaching family sociology. *The Family Coordinator*, 28, 205-216.
35. Oyelere, S. S., Suhonen, J., Wajiga, G. M., & Sutinen, E. (2018). Design, development, and evaluation of a mobile learning application for computing education. *Education and Information Technologies*, 23(1), 67–495.
36. Pecson, R. R. (2019, September 8). Localization and Contextualization in Teaching K-12 Social Studies. [Ryanramoletepecson.Blogspot.Com](https://ryanramoletepecson.blogspot.com/2014/06/localization-and-contextualizationin.html#:~:text=It%20helps%20teachers%20and%20students,life%2C%20customized%2C%20and%20appropriate). <https://ryanramoletepecson.blogspot.com/2014/06/localization-and-contextualizationin.html#:~:text=It%20helps%20teachers%20and%20students,life%2C%20customized%2C%20and%20appropriate>
37. Rocha, C. (2020). Evaluating experiential teaching methods in a policy practice course: The case for service learning to increase political participation. *Journal of Social Work Education*, 36, 53-63.
38. Rice, R. (2018). Implementing Connectivist teaching strategies in traditional K-12 classrooms. In F. H. Nah & B. Xiao (Eds.), *HCI in business, government, and organizations* (pp. 645–655). Cham: Springer.
39. Smith, J., & Smith, L. (2020). *Teaching strategies in the 21st century classroom*. Education Press.
40. Sotile, James M. Jr. (2022). The Use of Simulations in A Teacher Education Program. <https://files.eric.ed.gov/fulltext/ED490383.pdf>.

41. Taub, Michelle (2020). The Impact of Contextualized Emotions on Self-Regulated Learning and Scientific Reasoning during Learning with a Game-Based Learning Environment. *International Journal of Artificial Intelligence in Education*. 30. 97-120.
42. Taylor, E., Breed, M., Hauman, I. & Homann, A. (2013). Choosing learning methods suitable for teaching and learning in computer science. *International Association for Development of the Information Society*, 74-82.
43. Taylor, B., Ayoub, C., & Fischer, K. (2013). The cognitive science of learning and development. In R. M. Lerner (Ed.), *Handbook of child psychology and developmental science* (7th ed., Vol. 1, pp. 121–165). Wiley.
44. Tlili, A., Essalmi, F., & Jemni, M. (2016a). Metric-based approach for selecting the game genre to model personality. In Y. Li et al. (Eds.), *State-of-the-art and future directions of smart learning: Lecture notes in educational technology* (pp. 275–279). Singapore: Springer.
45. Tomines, E. M. M., Tipolo, A. A. P., & Pantao, J. G. (2021). Ap-Dama Design: Effectiveness on Test Performance of the Pupils in Araling Panlipunan. *ASEAN Journal of Basic and Higher Education*, 5(1), 41-64. Retrieved from <https://www.paressu.org/online/index.php/aseanjbh/article/view/288>
46. Truscott, M. H., Rustogi, H., & Young, C. B. (2020). Enhancing the macroeconomics course: An experiential learning approach. *Journal of Economic Education*, 31, 60-65.
47. University of Saint Augustine (2022). How Simulation in Education Benefits Students and Patients. <https://www.usa.edu/blog/simulation-in-education/>.
48. UNSW Sydney (2023). Simulations. Teaching Practices. <https://www.teaching.unsw.edu.au/simulations>.
49. Vlachopoulos, Dimitrios (2022). Simulation games: Factors. University of Liverpool.
50. Wang, Judy (2019). Classroom Intervention for Integrating Simulation Games into Language Classrooms: An Exploratory Study with the SIMS 4. Kyoto University, Japan.
51. Webster, D. G., & Muir, J. J. (1995, October). Presenting Physiological Measures: Effectiveness of Demonstration versus Lecture. <https://journals.sagepub.com/>. Retrieved October 29, 2022, from https://journals.sagepub.com/doi/abs/10.1207/s15328023top2203_8
52. Wiggins, B.E. (2016). An overview and study on the use of games, simulations, and gamification in higher education. *International Journal of Game-Based Learning*, 6(1), 18-29.
53. Zapalska, Alina (2022). Development of Active Learning With Simulation and Games. *US-China Education Review*.
54. Zendler, A. (2018). Instructional methods in computing education judged by computer science teachers and educational experts. *it-Information. Technology*, 60(2), 79–90.
- Adler, A. (2016). *Teaching well-being increases academic performance: Evidence from Bhutan, Mexico, and Peru*. University of Pennsylvania.