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Exploring Grade 9 Students' Perspectives on Game-Based Learning in Social Studies

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Abstract

This study investigates the perceptions of Grade 9 students at General de Jesus College towards game-based learning in the context of Social Studies Education. A quantitative research design was employed, utilizing a total population sampling technique that encompassed all 271 Grade 9 students of General de Jesus College for the academic year 2023-2024. The findings of this study reveal that students strongly agree that enforcing game-based learning is highly effective in increasing their engagement with the material, maintaining their concentration, and enhancing their overall interest in studying Social Studies. This suggests that incorporating game-based activities into the curriculum could be a valuable strategy for educators aiming to improve student participation and learning outcomes in this subject. The data gathered implies that this educational game approach through game-based learning has been significantly beneficial to students in studying the subject matter. Additionally, this study also suggested that educators, especially Social Studies teachers need often to utilize game-based activities such as quizzes and puzzle games to cater to students' learning. After a thorough investigation, the study concluded that incorporating game-based learning inside the classroom significantly enhances students' engagement, retains their concentration, and increases their interest in learning Social Studies.

Keywords—Concentration, Engagement, Game-Based Learning, Interest, Social Studies.

I. INTRODUCTION

People's attention spans have significantly shortened over the years, particularly among young individuals who are constantly exposed to stimuli from social media and technology devices (Gloria, 2023). This trend has been linked to societal pressures, digital addiction, and information overload, which negatively impact various aspects of a child's life, including their home and school environments (Oaten, 2022 as cited by Bostow, 2022; Anguera et al., 2023). The decline in attention spans has serious implications for learning, as students struggle to retain information and engage in meaningful activities (Cicekci et al., 2019; American Psychological Association, 2023).

While many teachers attribute the shortening of attention spans to technological advances, technology itself also offers substantial educational benefits. According to a survey by Pew Research, around 75% of teachers believe that the internet and search engines have positively impacted students' research skills (EU Business School, 2022). This duality of technology being both a distraction and a beneficial tool underscores its role as a double-edged sword in education (Naqvi, 2023).

Teaching social studies has become increasingly challenging due to students' lack of interest, low motivation, and poor academic performance (Musselman et al., 2018; Wijanarko et al., 2020). Factors contributing to these issues include limited teaching methods, inadequate teaching tools, and dry, wordy textbooks (Joshi, 2018; Bhatnagar, 2018). Additionally, dissatisfaction with teaching styles and student misbehavior further complicate the learning environment in subjects like Araling Panlipunan (Cosme, 2019). These challenges highlight the need for innovative approaches to engage students and improve their attitudes toward Social Studies.

Effectiveness of Game-based Learning

Ward (2022) found that teachers viewed digital games as beneficial for enhancing student engagement and motivation. It is also discovered by Goksu and Somen (2020) that social studies teachers find educational games helpful in creating an enjoyable and enduring learning environment. With that, the study recommended increased and effective use of instructional games. To support this argument, several studies, including a study by Ofiaza (2023) suggested that Araling Panlipunan teachers should employ diverse tools, such as projectors, to inspire students to explore concepts. Furthermore, the integration of digital tools and games in education offers a unique opportunity for effective and enjoyable learning (Sitorus et al., 2022). In particular, game-based learning is an active learning technique that enhances student learning and allows students to learn without realizing it (Lozano et al., 2023; Tokac et al., 2019)

Utilization of Game-based Learning in Various Content Areas

While game-based learning is common in areas such as Mathematics and English, studies are saying the implementation of game-based learning is limited, particularly in Social Studies, posing a challenge in teaching the subject. Serrano (2019) suggests more research on game-based learning across content areas, emphasizing the potential benefits to education. In addition, previous studies about game-based learning have been conducted in diverse settings specifically outside the country. Hence, to address these research gaps, the researchers conducted a study on Grade 9 students' perceptions of game-based learning in learning Social Studies. The study aims to understand

students' views on using games in their Social Studies curriculum, intending to create outcomes that cater to both teachers' needs and students' preferences. By focusing on students' perspectives, the research seeks to contribute to a positive learning environment and enhance educational approaches in Social Studies.

II. METHODOLOGY

2.1. Research Design

This study employed a quantitative method to gather data, which is effective due to its focus on numbers, logic, and objectivity, allowing for quick data processing and analysis (William, 2021). To enhance data reliability, a descriptive quantitative research method was used. Descriptive research, as explained by McCombes (2023), involves describing what already exists by explaining, documenting, studying, and perceiving the current state of a phenomenon's structure or processes. This method was chosen to describe the characteristics, behavior, and perceptions of a sample population. The descriptive method helped assess these perceptions, offering information useful for developing game-based interventions.

2.2. Respondents

The respondents were Grade 9 students from General de Jesus College during the 2023-2024 academic year. Grade 9 students were chosen because students face difficulties in understanding economics, as noted by Inayati et al. (2018). Additionally, Quirao (2023) found that students had low proficiency in basic economics concepts. The study aimed to improve this proficiency through game-based learning, which is effective for teaching complex subjects like economics (Platz, 2022; Schrier, 2018).

Table 1. Respondents of the Study

Sections	Male	Female	Total
Rosas	7	32	39
Sampaguita	20	19	39
Champaca	19	19	38
Daisy	19	21	40
Gladiola	18	22	40
Dahlia	17	21	38
Jasmin	18	19	37
Total	118	153	271

The respondents of this study are the Grade 9 students of General De Jesus College, consisting of 118 males and 153 females, for a total number of 271.

2.3. Data Collection and Instruments

The primary data collection tool was a questionnaire adapted from Quinto (2021) and modified to suit the study's needs. It consisted of three parts: demographic information, students' perceptions of game-based learning, and their preferences for game-based learning activities. The questionnaire, which included thirty-three questions, utilized a Likert scale ranging from 1 (strongly disagree) to 4 (strongly agree) to facilitate data analysis.

Data was gathered through survey questionnaires and unstructured interviews to validate responses. The process began with seeking permission from the school administration and obtaining consent from the participants. The initial questionnaire draft was reviewed by a research adviser and pilot tested with 30 Grade 9 students, resulting in a Cronbach's Alpha reliability score of 0.87. After incorporating feedback and final approval, the instrument was finalized.

The researchers, with the help of Grade 9 advisers, distributed and administered the questionnaires. Participants were briefed on the study's purpose, survey content, and confidentiality assurances. They were closely guided during the completion of the survey, after which the responses were collected. The data was then meticulously tabulated and interpreted to form the basis for the study's findings and recommendations.

2.4. Data Analysis

All the data gathered through the survey questionnaires were tallied, tabulated, summarized, and orderly recorded. To facilitate the analysis and interpretation of data, computer calculations and data processing were employed using Microsoft Excel. The following statistical tools were used: Frequency Count, which refers to the actual number of respondents based on their answers, and Percentage, used to determine the number of respondents in terms of percentage for their responses, calculated using % = f/N x100. The Mean, defined by Bhandari (2023) as the average score and center of gravity of distribution, was calculated using $x = (\sum x)/N$. The Weighted Mean, which accounts for the varying degrees of importance of the numbers in a data set, was calculated using $X = \sum fx/\sum f$. In computing the result for difficulties in each taxonomy level, the formula RC = Total correct answer / Total number of questions x100 was applied. Additionally, a Likert Scale, a type of rating scale used to measure attitudes, opinions, and perceptions, was used where respondents rate items based on their level of agreement (Jamieson, 2023).

III. RESULTS AND DISCUSSION

Table 2: Profile of the Respondents

Profile	Levels	f	%
Age	13 years old	1	0.37%
	14 years old	154	56.83%
	15 years old	109	40.22%
	16 years old	6	2.21%
	17 years old	1	0.37%
	Total	271	100%
Sex	Male	119	43.91%
	Female	152	56.09%
	Total	271	100%

The data reveals that among the 271 respondents, 154 (56.83%) are 14 years old, 109 (40.22%) are 15 years old, 6 (2.21%) are 16 years old, and there is one respondent each (0.37%) who is 13 and 17 years old. This indicates that the majority of the respondents are aged 14 to 15 years old. According to studies by Khan et al. (2018) and Serrano (2019), participants aged 12 to 15 perceive digital gamebased learning positively, as it makes their learning experience more enjoyable and engaging. Conversely, a study by Salsabila et al. (2020) found that while students aged 12 to 14 felt motivated and engaged with game-based learning, some struggled with concentration, which impacted their grasp of concepts. Age appears to be a contributing factor in students' perceptions of game-based learning.

Additionally, the data shows that most respondents are female, with 152 (56.09%) females and 119 (43.91%) males. Previous studies, such as those by Nadeem et al. (2023) and Nguyen et al. (2022), indicate that females are more likely to enjoy and spend more time on game-based learning than males. Despite these trends, the current study found that both males and females have positive perceptions of game-based learning. However, this study aims to analyze demographic data in relation to existing literature rather than directly evaluate perceptions based on age and sex. Consequently, it does not establish a correlation between demographics and perceptions of game-based learning. Further research is recommended to explore potential age-related and gender-related trends in students' perceptions of game-based learning.

Table 3: Mean Score and Verbal Description on the Perceptions of Students-Respondents towards game-based learning in Studying Social Studies be described in terms of Increasing Engagement

Sta	tements	Mean	Verbal Description
1.	find game-based learning activities to be enjoyable and engaging.	3.73	Strongly Agree
2.	Game-based learning enhances my understanding in the subject Araling Panlipunan.	3.54	Strongly Agree
3.	I am motivated to participate actively through game-based learning activities.	3.49	Strongly Agree
4.	The inclusion of games in my learning experience is valuable to me.	3.46	Strongly Agree
5.	I find game-based learning activities challenging and rewarding.	3.55	Strongly Agree
6.	Games make my learning experience more interactive and engaging.	3.66	Strongly Agree
7.	I am more likely to complete assignments that involve game-based learning.	3.37	Strongly Agree
Ov	Overall Rating		Strongly Agree

Legend:

3.25-4.00-Strongly Agree (SA)/ Very Effective

2.50-3.24-Agree (A)/ Effective

1.75-2.49-Disagree (D)/ Ineffective

1.00-1.74-Strongly Disagree (SD)/ Very Ineffective.

As shown in the table, it is revealed that the overall rating is 3.54 which underscores a strong agreement that game-based learning is very effective. This overall rating indicates the student-respondents believe that game-based learning can increase engagement when used in the classroom. Correspondingly, Justo et al. (2022) study's findings say that game-based learning helps in information acquisition and boosts student engagement. Thus, it appears to increase students' overall learning and engagement (May A. 2021). In parallel, the present study finding shows that the perceptions of student-respondents towards game-based learning in studying Social Studies in terms of increasing engagement is positive.

Table 4: Mean Score and Verbal Description on the Perceptions of Students-Respondents towards game-based learning in Studying Social Studies be described in terms of Retaining Concentration

Statements		Verbal Description
1. Game-based learning helps me retain information better than lecture methods.	3.37	Strongly Agree
2. Game-based learning makes me forget about the learning objectives	3.30	Strongly Agree
3. I can remain focused throughout game-based learning sessions.	3.32	Strongly Agree
4. I get easily distracted with games as compared to textbooks.	3.02	Agree
5. The use of games keeps me actively involved in the learning process.	3.47	Strongly Agree
6. I am able to maintain a high level of concentration during game-based learning activities.	3.32	Strongly Agree
7. The interactive nature of game-based learning keeps me engaged and focused.	3.43	Strongly Agree
8. I feel that game-based learning enhances my concentration compared to traditional methods.	3.25	Strongly Agree
9. I feel that game-based learning enhances my concentration compared to traditional methods.	3.35	Strongly Agree
Overall Rating		Strongly Agree

Moreover, as shown in the table, it is revealed that item one received the highest total weighted mean of 3.73 verbally described as "Strongly Agree". This means that the respondents perceived game-based learning as very

effective in terms of increasing their engagement. The findings indicate that the respondents strongly agree that game-based learning activities are enjoyable and engaging. Similarly, in the study conducted by Chen (2022) and

Fortefiani (2023) on the perception of students towards game-based learning, the majority of the respondents revealed that learning through games is a significant incentive to motivate them to be engaged and participate fully in the classroom. Thus, enhancing student engagement in the learning process (Rajan, 2023).

Meanwhile, item seven garnered the lowest weighted mean of 3.37. Despite this lower numerical value, it is verbally described as "Strongly Agree," and verbally interpreted as "Very effective." This indicates that although it has the lowest weighted mean, the respondents express a strong positive sentiment, showing their insight that they were likely to complete assignments that involve game-based learning. Likewise, in a study of Nadeem et al. (2023) on game-based learning, it is stated that when individuals comprehend the subject matter, they actively participate in discussions and are more likely to complete assignments. Generally, it can be observed from table 4 that shows a grand mean of 3.32, corresponding to the verbal

description "Strongly Agree." reveals among students, a very positive perception towards game-based learning's ability to enhance concentration retention. The argument is supported by a study conducted by Alonzo Fernandez et al. (2019), which states that the approach can significantly enhance students' learning, particularly by increasing the students interest and concentration. Additionally ,utilizing digital game-based learning methods can capture students' attention, motivate them to actively participate in their learning, and improve their achievements (Tangkui & Keong, 2020).

Besides, item number five receives the highest weighted mean of 3.47 indicating that they believed in the integration of games. Implementing game-based learning approaches into the learning environment could encourage students' improvement in their learning outcomes (Kula, 2021; Syafii, 2021) thus influencing retention, have full focus on learning (Tawafak et al., 2019; Liu et al., 2021) and class interaction (Justo et al., 2022).

Table 5: Mean Score and Verbal Description on the Perceptions of Students-Respondents towards game-based learning in Studying Social Studies be described in terms of Enhancing Interest

Statements			Verbal Description
1.	Elements used in game-based learning can attract my attention and interest from the start.	3.54	Strongly Agree
2.	Game-based learning materials are dull and unappealing	3.35	Strongly Agree
3.	Game-based learning excites me.	3.55	Strongly Agree
4.	Game-based learning helps me overcome boredom in the classroom.	3.66	Strongly Agree
5.	Rewards and punishments in game-based learning catches my interest.	3.41	Strongly Agree
6.	The use of games increases my overall interest in the subject matter.	3.42	Strongly Agree
7.	I would choose game-based learning over the use of textbooks.	3.17	Agree
8.	The variety of game formats (e.g., puzzles, and quizzes) contributes to my interest in learning.	3.45	Strongly Agree
9.	I look forward to class when game-based learning is utilized.		
		3.43	Strongly Agree
Overall Rating		3.44	Strongly Agree

Legend:

3.25-4.00-Strongly Agree (SA)/ Very Effective

2.50-3.24-Agree (A)/ Effective

1.75-2.49-Disagree (D)/ Ineffective

1.00-1.74-Strongly Disagree (SD)/ Very Ineffective.

Furthermore, although item number four gathered the lowest weighted mean of 3.02 revealed that they do not get easily distracted with games as compared to textbooks. As stated in the study of Setyaningrum et al. (2018) students

who engaged with game-based learning in a positive and supportive environment demonstrated greater intensity and effectiveness compared to those relying solely on textbooks. The results also indicate that students exposed to game-based learning outperformed their peers who relied solely on textbooks, particularly in problem-solving. Additionally, the gathered data showed that students are in favor of game-based learning over the use of textbooks.

Therefore, utilizing this technique could help them to learn the materials through embedded games. Ultimately, using game-based learning led to higher learning achievements compared to traditional textbook-based approaches.respondents believed game-based learning could enhance their interest in studying Social Studies.

As the data shows, the grand weighted mean is 3.44 which is described as "Strongly Agree". This shows that the perceptions of student respondents towards game-based learning in terms of Enhancing Interest are positive. This is supported by Priyaadharshini et al., 2020 which indicates that game-based learning is considered one of the most innovative learning approaches for increasing students' interest.

The statement four shows that game-based learning helps the respondents overcome boredom in the classroom, gathering the highest weighted mean of 3.66, verbally described as "Strongly Agree." This is verbally interpreted as "Very Effective."

As stated by Adipat et al. (2021), games should be structured to enable students to repeat the cycles within the game context without getting bored. The utilization of game-based learning enables teachers to integrate active learning into their classes, boosting student interest and

involvement, and giving instant feedback on student performance (Hui, 2023). Moreover, according to Rajan (2022), Game-based learning is an effective method for increasing student interest.

On the other hand, the statement that had the lowest weighted mean of 3.17 shows that the respondents would choose game-based learning over the use of textbooks. This corresponds to the verbal description of "agree", and is verbally interpreted as "effective." This means that the students view textbooks and game-based learning as both effective in learning Social Studies.

Nonetheless, textbooks still act as a security, a physical representation of information that they can hold in their hands which tells them what they should learn and possibly motivates them to learn. Additionally, as expressed by Simu (2022), it also appears that textbooks ought to be supplemented by other teaching materials, physical and computerized teaching aids. In line with this, game-based learning can be an effective supplement, as it is an active learning technique that enhances student learning (Lozano et al., 2023). As a result, the students are looking for learning experiences that are more fascinating, enjoyable, inspiring, and engaging (Anastasiadis et al., 2018). In addition, according to Simu (2022), textbooks are still considered a necessary portion of teaching and learning. Consequently, educators can utilize digital game-based learning to assist students in skill development (Serrano, 2019).

Table 6: Summary of the Mean Score and Verbal Description on the Perceptions of Student-Respondents towards gamebased learning in studying Social Studies

Statements	Mean	Verbal Description
1. Increasing Engagement	3.54	Strongly Agree
2. Retaining Concentration	3.32	Strongly Agree
3. Enhancing Interest	3.44	Strongly Agree
Overall Rating	3.43	Strongly Agree

Legend:

3.25-4.00-Strongly Agree (SA)/ Very Effective

2.50-3.24-Agree (A)/ Effective

1.75-2.49-Disagree (D)/ Ineffective

1.00-1.74-Strongly Disagree (SD)/ Very Ineffective.

The table summarizes student-respondents' perceptions of game-based learning in Social Studies, focusing on engagement, concentration, and interest enhancement. Increasing engagement received the highest mean of 3.54, described as "Strongly Agree," indicating that students find

game-based learning highly effective for engagement. This is supported by studies such as May (2021), which highlight the educational benefits of game-based learning, and Nadeem (2023), who notes that engaging games keep students motivated.

Research by Hartt et al. (2020) underscores that game-based learning enhances inspiration and emotional engagement. Additionally, studies by Hu et al. (2023), May (2021), and Fortepiani (2023) show that game-based learning improves both skills and knowledge. Digital game-based learning, incorporating elements like collaboration and feedback, positively impacts student engagement (Serrano, 2019; Wang et al., 2022).

Retaining concentration had the lowest mean of 3.32, still described as "Strongly Agree" and "Highly Effective," indicating that students find game-based learning effective for concentration. Mahmud et al. (2023) and Bhat et al. (2023) support this by stating that game-based learning enhances attention and concentration. The overall rating of 3.43, described as "Strongly Agree" and "Highly Effective," reflects students' belief in the effectiveness of game-based activities. Interviews revealed that students find game-based learning enjoyable, motivating, and more effective than traditional methods, enhancing their focus and participation in class.

Table 7: Game-based learning activities often utilized by Social Studies teachers

Percentage	Verbal Description
14.02%	Sometimes
12.18%	Sometimes
5.32%	Sometimes
5.32%	Sometimes
	14.02% 12.18% 5.32%

Table 7 indicates that students reported the use of puzzle games most frequently in Araling Panlipunan classes, with a utilization rate of 14.02%, though all game types were described as used "sometimes." Quiz games followed with 12.18%, and card and simulation games both at 5.32%. Li (2023) and Fitria (2023) highlighted that puzzle games effectively boost student motivation and engagement, while Erladini (2019) found them beneficial for grasping social science concepts. Quiz games, such as Quizizz, positively impact student interest and learning outcomes (Pratama, 2021). Simulation games, including role- playing, help cover complex topics and promote active learning (University of Miami, 2024; Chernikova et al., 2020). Despite being less frequently used, card games also have educational benefits (Singh et al., 2021; Muthiyan et al., 2023). Interviews with grade 9 students revealed that teachers occasionally use games in Araling Panlipunan, indicating underutilization of interactive learning methods and missed opportunities for engagement. Overall, gamebased learning in Araling Panlipunan at General De Jesus College is infrequently implemented.

IV. CONCLUSION

Respondents indicated that they learned most effectively when game-based learning activities were utilized by their teachers. The respondents believed that game-based learning is enjoyable and engaging. Therefore, in terms of maintaining their focus, it reveals among the respondent, a very positive perception towards game-based learning's ability to catch attention, thus, enhancing their concentration retention. Additionally, implementing this approach, heightens their interest in learning Social Studies. They believe that integrating games is entertaining and helps them overcome classroom boredom. Hence, the respondents feel that game-based learning keeps them motivated to learn. On the other hand, the respondents noted that their Araling Panlipunan teachers sometimes utilized game-based learning activities, such as puzzles, quizzes, simulations, and card games in teaching Social Studies. Where it reveals that student-respondents' preferences in terms of game-based activities in learning Social Studies subjects are quiz and puzzle games. This implies, that incorporating quiz and puzzle games should often be utilized as students believed it could enhance their interest, concentration, and engagement in studying Social Studies.

V. RECOMMENDATION

Following are the recommendations made in the context of the findings of this study and the conclusions drawn from them:

- 1. The students may engage in games to enhance their interest, engagement, and concentration in learning.
- 2. The teachers may use a wider variety of game-based learning activities like simulations, quizzes, puzzles, and card games, to cater different student preferences and keep them engaged. The teachers may continuously evaluate the effectiveness of game-based activities on the student's learning in Araling Panlipunan.
- 3. The school may consider incorporating game-based activities in the curriculum as these were found to be highly effective in the students' interest, concentration, and engagement in learning. The school may continue providing opportunities for teachers to attend seminars and workshops about using game-based learning in the classroom.

Future Researchers may explore the effectiveness of gamebased learning and its relationship to the student's academic performance in studying Araling Panlipunan. Future Researchers may explore the practicality of implementing game-based learning in different types of classrooms and the potential difficulties educators face in adopting game-based learning.

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