

GAME-BASED INSTRUCTION: ENHANCING THE LEARNER'S RETENTION IN WORLD HISTORY SUBJECT

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ABSTRACT: This research aims to determine the influence of game-based instruction in improving students' learning retention. Ascertain the difference in the students' learning retention of the group and individual game-based instruction. The researchers utilized Action Research Design, specifically Collaborative Action Research Design. The data collection was done through both quantitative and qualitative approaches. A game-based instruction and interview were employed to collect the required data. Based on the results the respondents found the 5Ps as an assessment tool that helps retain information. This indicates that collaborative game-based activity is effective for the students in acquiring knowledge and skills. The results indicate that the student's performance in Group game-based obtained better scores than the Individual game-based. Results indicated that group game-based instruction is highly beneficial and significantly contributes to the enhanced learning retention of the students.

Keywords: individual game-based instruction, world history, araling panlipunan, learning retention

Introduction

Nature and Importance of the Study

History is one of the most prominent and valuable academic subjects. "It is the knowledge of and study of the past. It is the story of who we are, where we come from, and can potentially reveal where we are headed" ("Why is history important and how can it benefit your future?" 2020). Studying history will not only make a person more informed but, it will socially and intellectually cultivate that person. History subject is essential in developing students' sense of nationalism, and also the

love and loyalty towards becoming a true citizen. Although, most students have the impression that history subject is boring and unattractive (Ahmad, 2016a). This initial thought causes the students to be less focused and less motivated to learn the subject.

Many studies have confirmed that incorporating game-based learning strategies is often more effective in enhancing students' interest, motivation, participation, retention, learning performance, and achievement than the traditional teaching method (Kirikkaya *et al.*, 2010, as cited in Liu & Chen, 2013). Individual works or individual game-based, "help students work at their own pace, they are confident about what they know and what they need to spend more time on, they can use their preferred learning styles and strategies" ("Flexible Grouping: Individual, Pair and Group Working," 2009). Group work or group game-based, on the other hand, creates more opportunities for critical thinking and can promote students' learning and achievement. It gives students the opportunity to engage in process skills critical for processing information, evaluating and solving problems, as well as management skills through the use of roles within groups, and assessment techniques used to evaluate possibilities and decide on their group's ultimate response ("Benefits of Group Work," 2022).

While game-based learning has been proved by many studies to be more effective compared to conventional teaching, it has been mostly used only in Mathematics and Science, and rarely in Araling Panlipunan, particularly in history. In this context, the researchers sought to determine the influence of game-based

instruction in enhancing the learning retention of students and performance in Araling Panlipunan World History subject.

Objectives of the Study

This study specifically aims to:

1. Determine the influence of game-based instruction in enhancing the learning retention of students.
2. Ascertain the difference in the student's learning retention of the group and individual game-based instruction.

Theoretical Framework of the Study

This study was anchored on B.F. Skinner's (1920) Behavioral Theory and Lev Vygotsky (1968) Theory of Social Constructivism. Behavioral Theory describes the game components can serve as incentives since they can train students to exhibit a particular learning response that will aid in learning retention. Similarly, Game-based Instruction is an instructional approach that has specific learning objectives and outcomes that unfold through gameplay wherein teachers plan modules or lessons that provide interaction and competition to engage learners to learn through games. Moreover, it is expected that playing educational games will increase players' motivation and encourage cognitive processing of the game's material, which will enhance learning (Delacruz, 2012a).

The Theory of Social Constructivism proposed by Lev Vygotsky focuses heavily on dyads” (Johnson & Bradbury, 2015) and small groups. For instance, learning occurs when students interact with their peers, teachers, and such. Hence, games are effective learning tools when they can incorporate “social interactions and dialogue among learners and between learners and teachers” and “performance of students can consequently be improved” (Thato Foko, 2008). With the support of social constructivism, Game Based Learning (GBL) gives each member an opportunity to incorporate their experiences and own knowledge in various class activities.

Methodology

Research Design and Sampling

The researchers utilized this design since collaborative research involves a group of people researching a specified topic. Typically, a group of students, or a class, are tested, and the results are analyzed. This design was deemed appropriate since the study aims to determine the influence of game-based instruction in improving the learning retention of students and ascertain the difference in the students’ learning retention of group and individual game-based instruction.

The respondents of this study were the 463 students from the Caibiran National High School. Since this is a very large amount, the researchers will be using the acceptable amount for correlation research such as this, which is 20. The

researchers used a simple random sampling to get the 20 people selected to participate both in group and individual game-based instruction.

Data Collection Procedures

Before the study commenced, the respondents' informed consent, institutional review, and approval were requested and secured first. The data collection was done through both quantitative and qualitative approaches. A game-based instruction and interview were employed to collect the required data. A game called the Studying Contest (Tama o Mali) was played by the students in group game-based instruction, wherein two groups were given each placard labeled as "Tama" and "Mali". In individual game-based instruction, the respondents played a game called Jumbled Words. To determine the influence of game-based instruction in improving learning retention of students, 5Ps (Pangalan, Pangyayari, Pook, Panahon, Puntos) were used as an assessment tool both in group and individual game-based instruction. An interview was also conducted at the end of the study. The purpose was to get a more detailed description of their reflection on group and individual game-based instruction.

Data Analysis

Descriptive statistics such as relative frequency, mean, and standard deviation were utilized to determine the difference between individual game-based

and group game-based instruction and the influence of game-based instruction in enhancing and improving the learners' learning retention.

Results and Discussion

Table 1, shows the results of the application of the 5Ps as an Assessment Tool to Determine the Influence of Game-based Instruction in Improving Learning Retention of Students Both in Individual and Group Game-based Instruction.

Results on the Application of 5Ps as an Assessment Tool to Determine the Influence of Game-Based Instruction in Enhancing Learning Retention of Students Both in Individual and Group Game-Based Instruction

Score	F	Interpretation
17-20	11	Outstanding
13-16	9	Very Satisfactory
9-12	0	Satisfactory
5-8	0	Poor
1-4	0	Needs Improvement
331	20	Total
16.55		Mean
3.26		SD

It can be deduced that the 5Ps as an assessment tool ranged from 0-20 where 11 obtained 17-20 interpreted as outstanding, and only 9 got a score ranged 13-16 interpreted as very satisfactory, meanwhile 0 got a score ranging from 1-12. Results indicated that 5Ps had the total performance (M=16.55).

As can be observed from the scores of the respondents, it demonstrated a positive result towards the 5Ps as an assessment tool. Specifically, the result shows

that the respondents found the 5Ps as an assessment tool that helps retain information. All in all, 14 respondents chose group game-based activity, while 6 preferred individual game-based activity as an activity that they enjoyed the most. The students who chose the group game-based activity stated that this activity encouraged them to participate in the group since they were having a good time while performing the said activity.

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For question no. 1, students were asked “Which activity did you enjoy most (Studying Contest or Jumble Letters)? Why?”

“I enjoyed studying contest the most because the whole class was able to participate in this activity.” (Participant A)

“I enjoyed studying contest the most because I learned a lot from it.” (Participant D)

“I enjoyed studying contests more because I love working with my classmates.” (Participant R)

“I prefer jumbled letters because I enjoy learning through this activity.” (Participant J)

All in all, 14 respondents chose group game-based activity, while 6 preferred individual game-based activity as an activity that they enjoyed the most. The students who chose the group game-based activity stated that this activity encouraged them to participate in the group since they were having a good time while performing the said activity.

Question number 2: Which activity helps you retain more information? Why do you think so?

“Studying contests is the activity that helps me retain information easily because I really enjoy working with groups.” (Participant F)

“I prefer studying contests as an activity that helps me retain more information.” (Participant G)

“I choose jumbled letter because I acquired knowledge through this activity.” (Participant M)

The respondents also emphasized that the collaborative game-based activity helps them retain information easily. There were 14 students who chose group game-based activity, while 6 in individual game-based activity, the responses showed that after going through this activity they were able to gain knowledge and retain information that they could use as lifelong learners.

Question number 3: What do you think about game-based learning?

“I enjoyed the activity at the same time acquired knowledge.” (Participant B)

“It is enjoyable and has a lot of learning. (Participant C)

“I enjoyed the game and have gained information from the lesson.” (Participant K)

“It is interesting and challenging. I prefer it more compared to pure lectures.” (Participant M)

“I enjoyed doing it. I am more encouraged to participate in class.” (Participant P)

In addition, the respondents stated their opinion about game-based learning that they enjoy the activity and has acquired a lot of information. The students' response described game-based learning as an interesting activity that encourages them to participate in class.

Respondents' responses to open-ended questions presented by the researchers showed that respondents found group game-based instruction as an enjoyable and helpful activity in retaining information. They stated that collaborative (Group game-based) activity is an activity that enhances their interest in participating in the class. Therefore, the respondents declared that collaborative activity is good for retaining information. Some of the respondents' responses are presented below.

Individual Game-Based Instruction (Jumbled Letter) and the Group Game-Based Instruction (Studying Contest)

As presented in Table 2, It shows the Results on Grade 8 Students of Section Danaya in the Individual Game-based Instruction (Jumbled Letter)

Table 2

Results on Grade 8 Students of Section Danaya in the Individual Game-Based Instruction (Jumbled Letter) and in the Group Game-Based Instruction (Studying Contest)

Score	f	Interpretation	Score	f	Interpretation
9-10	0	Outstanding	9-10	10	Outstanding
7-8	7	Very Satisfactory	7-8	10	Very Satisfactory

5-6	13	Satisfactory	5-6	0	Satisfactory
3-4	0	Poor	3-4	0	Poor
1-2	0	Needs Improvement	1-2	0	Needs Improvement
123		Total	170		Total
6.15	20	Mean	8.5	20	Mean
5.36		SD	3.24		SD

This indicates that the respondents have acquired knowledge through this individual game-based activity. This implies that all students passed the activity, which shows that they have acquired enough knowledge from the lesson.

The difference in the students learning retention of the group and individual game-based instruction.

Table 3, Presents the difference in the students' learning retention of the group and individual game-based instruction.

Table 3
Difference in the Student's Learning Retention in Group and Individual Game-Based Instruction

Game-based Instruction	N	Mean	SD
Individual Game-based	20	6.15	5.36
Group Game-based	20	8.5	3.24

The result indicates that the respondents' performance in Group game-based (M=8.5) obtained better scores than the Individual game-based (M=6.15). Therefore, the results revealed and led to a decision of supporting the hypothesis, that respondents' learning retention is higher when group game-based instruction is used than the individual game-based instruction.

Conclusions and Recommendations

In general, the study found that using group game-based instruction is highly beneficial and significantly contributes to the enhanced learning retention of the students. Results revealed and led to a decision of supporting the hypothesis, that students' learning retention is higher when group game-based instruction is used than the individual game-based instruction. Moreover, this paper demonstrated a positive result towards the 5Ps as an assessment tool that the respondents found the 5Ps as an assessment tool that helps retain information. As a result, it is suggested that Araling Panlipunan teachers may incorporate more engaging and creative teaching instructions for quality and effective learning such as the Studying Contest (a group game-based instruction) and any other game-based instructions suitable for their discussion.

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