

Enhancing Students' Engagement and Historical Understanding through Map-Integrated Instruction in World History

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ABSTRACT

This study determined the effectiveness of Map-Integrated Instruction in enhancing student engagement and historical understanding among Grade 8 students in World History. Specifically, it examined the pretest and posttest results and the mean gain differences between the experimental and control groups and developed an Instructional Practices Improvement Plan (IPIP) based on the findings. A quasi-experimental pretest–posttest research design was employed at Cangawa National High School, Buenavista, Bohol, during School Year 2025–2026. Using purposive sampling, 80 Grade 8 students participated in the study, with 40 students in the experimental group and 40 in the control group. Data were gathered using an adapted Student Engagement Questionnaire and a researcher-made Historical Understanding Test. Frequency count, percentage, weighted mean, standard deviation, paired-samples t-test, and independent-samples t-test were used to analyze the data. The findings showed that both groups significantly improved in historical understanding, while only the experimental group demonstrated significant improvement in student engagement. The experimental group also obtained significantly higher mean gain scores than the control group in both student engagement and historical understanding. The study concluded that Map-Integrated Instruction may enhance student engagement and historical understanding in World History. An Instructional Practices Improvement Plan was proposed to strengthen the integration of map-based strategies in classroom instruction.

Keywords: Teaching Social Studies, Student Engagement, Historical Understanding, Quasi-Experimental Pretest–Posttest Research Design, Cangawa National High School, Cangawa, Buenavista, Bohol

INTRODUCTION

History education plays a vital role in developing learners' understanding of the past and enabling them to make informed interpretations of historical events. Rather than simply memorizing dates, places, and personalities, students are expected to examine historical evidence, understand context, recognize relationships among events, and construct explanations about the past. Wineburg (2001) emphasized that historical thinking requires learners to examine evidence, consider historical context, and construct interpretations. Similarly, Van Drie and Van Boxtel (2008) explained that historical reasoning involves interpreting historical information and constructing explanations about the past. These perspectives highlight the importance of instructional approaches that develop historical understanding beyond factual recall.

In Philippine basic education, these goals align directly with Republic Act No. 10533, also known as the Enhanced Basic Education Act of 2013. Rather than treating this law as just a set of rules, this study puts it into practice by using maps to give Grade 8 students an active role in their own learning. This approach also supports DepEd Order No. 010, s. 2024, which guides the MATATAG Curriculum. This policy highlights the importance of making classroom lessons meaningful, active, and helpful to students. By using maps in class, World History lessons move away from plain lecture and memorization, directly supporting the behavioral, emotional, and cognitive areas of student engagement outlined by Fredricks et al. (2004).

Despite these educational goals, students may still have difficulty learning world history when instruction provides limited opportunities to connect historical information with its geographical and contextual dimensions. Learners may remember historical facts but have difficulty relating events to specific places, movements,

territories, and geographical conditions. Doolittle et al. (2023) emphasized that active learning is a student-centered approach that involves learner activity, participation, engagement, and higher-order thinking. These ideas highlight the potential value of instructional approaches that provide learners with more active and meaningful opportunities to interact with historical information. In World History, integrating maps into classroom instruction can provide such opportunities by allowing learners to examine places, movements, territories, and spatial relationships while engaging with historical content.

One promising approach is Map-Integrated Instruction, which uses printed maps and presentation-based maps as instructional resources to help learners visualize historical events and understand relationships between geography and history. Wiegand (2006) emphasized that maps can support learners' understanding of spatial relationships, while Segara et al. (2018) presented map literacy as an important component of learning and emphasized the use of maps as learning resources in Social Studies. Parellada et al. (2024) further emphasized the value of historical maps in understanding territorial changes and the spatial dimension of historical developments. The value of using maps in teaching can be understood by looking at how people take in and organize information. According to Paivio's (1986) Dual-Coding Theory, learners process information through both words and images. Mayer (2009) also found that learning improves when visual materials are used alongside verbal explanations. In world history classes, maps can help by showing locations, routes, borders, movements, and other spatial details to support what is being explained. Using both visual and verbal information can help students better organize historical ideas and see how events connect to their geographic settings.

At Cangawa National High School, classroom observations and students' learning performance indicated that some Grade 8 learners experienced difficulty connecting historical events with their corresponding geographical locations and explaining how geography influenced historical developments. Although students could recall important historical facts, some learners had difficulty interpreting historical events within their spatial context. These classroom observations indicated a need for instructional strategies that integrate geographical visualization with historical analysis and provide learners with opportunities for active participation.

This study looked at whether using maps in teaching could help Grade 8 World History students become more engaged and improve their understanding of history. The lessons included both printed maps and maps shown in PowerPoint presentations. Researchers measured student engagement by looking at behavior, emotions, and thinking and checked historical understanding with a test they created. The findings were then used to create an Instructional Practices Improvement Plan (IPIP) to help Araling Panlipunan teachers use maps more effectively in class and encourage learner-centered teaching, following the goals of the MATATAG Curriculum.

Statement Of The Problem

This study aimed to determine the effectiveness of map-integrated instruction in enhancing students' engagement and historical understanding in World History among Grade 8 students at Cangawa National High School in the District of Buenavista II of Bohol Province division during the school year 2025–2026 as a basis for an Instructional Practices Improvement Plan.

Specifically, the study sought to answer the following questions:

1. What is the level of student engagement in the experimental and control groups during the pretest?
2. What is the level of students' historical understanding in the experimental and control groups during the pretest?
3. What is the level of student engagement in the experimental and control groups during the posttest?
4. What is the level of students' historical understanding in the experimental and control groups during the posttest?
5. Is there a significant difference between the pre-test and post-test results of the control group in terms of:

5.1 Student engagement, and

5.2 Historical understanding?

RESEARCH METHODOLOGY

This section presents the research design, research environment, respondents, research instruments, data-gathering procedures, statistical treatment, scoring procedure, and ethical considerations followed in conducting the study.

Design

The study used a quasi-experimental pretest–posttest design. This approach was selected because the researcher utilized two existing Grade 8 class sections instead of randomly assigning individual students to experimental and control groups. Creswell and Creswell (2018) noted that quasi-experimental research is appropriate for examining the effects or differences associated with an intervention in situations where random assignment cannot be implemented.

Two intact Grade 8 sections participated in the study. Section Garnet was designated as the experimental group and received Map-Integrated Instruction, whereas Section Amber served as the control group and received Traditional Lecture-Based Instruction. The same groups completed a pretest before the instructional intervention and a posttest following the four-week implementation period.

The investigation focused on two outcome variables: student engagement and historical understanding. Student engagement was examined through its behavioral, emotional, and cognitive dimensions. Historical understanding, on the other hand, was measured through students' performance in knowledge recall, map interpretation, and historical analysis. The pretest and posttest results were examined to determine changes within each group, while the mean gain scores were compared to determine whether the two instructional approaches were associated with different levels of improvement.

Flow of the Study

The study was organized using the Input–Process–Output (IPO) model to present the major parts and sequence of the research. It showed how the instructional approaches and study variables were introduced, how the research activities were carried out, and how the findings were used to develop the study output. The model also showed the step-by-step flow of the study, beginning with the inputs, followed by the research process, and ending with the development of the instructional plan. Through this model, the relationship among the different parts of the study was clearly presented.

The **Input** included the two instructional approaches and the outcome variables examined in the study. Map-Integrated Instruction was used with the experimental group, while Traditional Lecture-Based Instruction was used with the control group. Both groups were taught the same World History content using their assigned instructional approaches. The main outcome variables were student engagement and historical understanding. Student engagement covered the behavioral, emotional, and cognitive dimensions, while historical understanding focused on knowledge recall, map interpretation, and historical analysis. These variables were measured before and after the intervention to determine the changes that took place during the study.

The **Process** included the preparation and validation of the research instruments, administration of the pretests, implementation of the assigned instructional approaches, and administration of the posttests. The pretests were given to determine the students' initial levels of engagement and historical understanding before the intervention. During the intervention, the experimental group received Map-Integrated Instruction using printed maps and PowerPoint-based maps, while the control group received Traditional Lecture-Based Instruction. After the intervention, posttests were administered to both groups. The data gathered were then organized, statistically treated, analyzed, and interpreted based on the research questions and objectives of the study.

The **Output** of the study was the Instructional Practices Improvement Plan (IPIP). The plan was developed based on the important findings of the study and the concerns identified from the results. It was designed to provide

Araling Panlipunan teachers with practical and feasible strategies for integrating map-based activities into World History instruction. The plan included activities that could help make lessons more meaningful and encourage students to participate actively in learning. It also aimed to support the improvement of students' engagement and historical understanding through appropriate map-integrated classroom activities. Thus, the IPIP served as the practical output of the study and as a guide for improving instructional practices in teaching World History.

Environment

This study was conducted at **Cangawa National High School**, under the Department of Education (DepEd) – Bohol Division, in the municipality of Buenavista, Bohol. The school is a large public secondary school that has served learners in the community for many years. According to the Learner Information System (LIS) data, the school had eighty (80) teachers and one thousand seven hundred thirty-three (1,733) students at the time of the study. It is also recognized for its participation and achievements in various local academic and extracurricular activities. At the time of the study, Cangawa National High School offered specialized programs, including the Special Program in the Arts (SPA) and the Special Science Program (SSP). In Senior High School, the school offered the Academic and Technical-Professional (TechPro) tracks. These programs reflect the school's efforts to provide learners with varied educational opportunities suited to their interests, abilities, and future goals. The study focused on two intact Grade 8 sections enrolled in World History under Araling Panlipunan, with forty (40) students in each section, for a total of eighty (80) respondents. Section Garnet served as the experimental group, while Section Amber served as the control group. The school provided an appropriate setting for implementing and comparing Map-Integrated Instruction and Traditional Lecture-Based Instruction using the same World History content. Its regular classroom environment also allowed the study to examine the possible effects of map-integrated instruction on students' engagement and historical understanding in an actual public-school setting.

Respondents

The participants of the study consisted of 80 Grade 8 students enrolled at Cangawa National High School, Buenavista, Bohol, during School Year 2025–2026. They were drawn from two existing Grade 8 sections, with 40 students from Section Garnet comprising the experimental group and 40 students from Section Amber comprising the control group.

Students in the experimental group were exposed to Map-Integrated Instruction through the use of printed maps and PowerPoint-based maps. In contrast, the control group received Traditional Lecture-Based Instruction within the regular classroom setting. Both groups studied the same World History content and followed identical procedures for the administration of the pretest and posttest.

Purposive sampling was employed in selecting the participants and the two intact sections. Grade 8 learners were considered appropriate because World History was included in their learning area and the selected topics corresponded to the curriculum content covered during the intervention. The two sections were chosen based on their availability and suitability for participation in the four-week instructional intervention. Retaining the existing class sections allowed the researcher to conduct the study within the regular school schedule and classroom arrangement without reorganizing the students.

RESULTS AND DISCUSSIONS

Pretest Level Of Historical Understanding Of The Experimental And Control Groups

The pretest in historical understanding was given before the intervention to determine what the students already knew about the World History topics included in the study. It provided information about the students' starting level before they received their respective instructional approaches. The table shows the number and percentage of students in each proficiency level, as well as the mean and standard deviation of the two groups. These results were used as a starting point for examining the students' performance after the four-week intervention.

Table 1 Level of historical understanding of the two groups during Pretest

Level	Ranges of Scores	Control		Experimental	
		f	%	f	%
Outstanding	33-40	0	0.00	0	0.00
Very Satisfactory	25-32	0	0.00	0	0.00
Satisfactory	17-24	22	55.00	19	47.50
Fairly Satisfactory	9-16	18	45.00	21	52.50
Poor	0-8	0	0.00	0	0.00
Total		40	100.00	40	100.00
Average		16.65		16.58	
St. Dev.		3.21		2.75	

The results show that the two groups had almost the same level of historical understanding before the intervention. In the control group, 22 students (55.00%) were classified as Satisfactory, while 18 students (45.00%) were at the Fairly Satisfactory level. In the experimental group, 19 students (47.50%) were classified as Satisfactory and 21 students (52.50%) were at the Fairly Satisfactory level. No student in either group reached the Very Satisfactory or Outstanding level. The control group had a mean score of 16.65 (SD = 3.21), while the experimental group had a mean score of 16.58 (SD = 2.75). The difference of only 0.07 point shows that the two groups had very similar starting scores in historical understanding.

This finding can be related to Wineburg's (2001) view that learning history involves more than remembering facts. Students also need to understand events in their historical context and make connections among different aspects of the past. In the present study, the pretest results simply show what the students knew and understood before the intervention. The nearly identical mean scores suggest that the students in the two groups entered the study with generally similar levels of historical understanding based on the assessment used.

The findings imply that the control and experimental groups had nearly comparable levels of historical understanding before the intervention. This provides a clear baseline for determining changes in students' understanding after the four-week intervention. The results also suggest the need for appropriate instructional strategies to improve students' understanding of historical events, particularly since no student reached the Very Satisfactory or Outstanding level during the pretest.

Posttest Level Of Student Engagement Of The Experimental And Control Groups

The posttest was given after the four-week instructional period to determine the students' level of engagement after receiving their respective instructional approaches. The same Student Engagement Questionnaire was used to measure behavioral, emotional, and cognitive engagement. The table presents the number and percentage of students in each engagement level, together with the mean and standard deviation of the two groups. These results show the students' engagement at the end of the intervention and provide a basis for comparing the two groups.

Table 2 Level of student engagement of the two groups during Posttest

Level	Ranges of Scores	Control		Experimental	
		f	%	f	%
Very High	111-150	10	25.00	18	45.00

Moderate	71-110	25	62.50	17	42.50
Low	30-70	5	12.50	5	12.50
Total		40	100.00	40	100.00
Average		94.95		104.60	
St. Dev.		20.21		24.89	

The results show a difference in the engagement levels of the two groups after the intervention. In the control group, 25 students (62.50%) were moderately engaged, 10 students (25.00%) had very high engagement, and 5 students (12.50%) had low engagement. In the experimental group, 18 students (45.00%) reached the very high engagement level, 17 students (42.50%) were moderately engaged, and 5 students (12.50%) remained at the low level. The experimental group also obtained a higher mean score of 104.60 (SD = 24.89), compared with 94.95 (SD = 20.21) for the control group. These results show that the experimental group had a more favorable level of engagement at the end of the four-week intervention.

One possible reason for this result is the opportunity given to students to take part in map-based activities. Fredricks et al. (2004) explained that student engagement includes behavioral participation, emotional involvement, and cognitive effort. In the present study, students in the experimental group were asked to locate places, examine maps, discuss spatial relationships, and connect locations with historical events. Lucero et al. (2024) also found that collaborative mapping activities in history education can encourage students to participate in historical reasoning and knowledge construction. These findings support the idea that activities involving students directly with visual materials may encourage greater participation and involvement in learning.

The findings imply that the experimental group demonstrated a more favorable level of student engagement after the intervention. The higher mean score and greater proportion of students with very high engagement suggest that map-integrated activities may help encourage students' behavioral, emotional, and cognitive involvement in learning. However, further statistical analysis is needed to determine whether the observed difference is significant.

Posttest Level of Historical Understanding Of The Experimental And Control Groups

The posttest was given after the four-week intervention to determine the students' level of historical understanding after receiving their respective instructional approaches. The test covered the World History topics included in the intervention. The table presents the number and percentage of students in each proficiency level, together with the mean and standard deviation of the two groups. These results describe the students' performance after the instructional period and provide a basis for comparing their improvement.

Table 3 Level of historical understanding of the two groups during Posttest

Level	Ranges of Scores	Control		Experimental	
		f	%	f	%
Outstanding	33-40	2	5.00	6	15.00
Very Satisfactory	25-32	22	55.00	32	80.00
Satisfactory	17-24	14	35.00	2	5.00
Fairly Satisfactory	9-16	2	5.00	0	0.00

Poor	0-8	0	0.00	0	0.00
Total		40	100.00	40	100.00
Average		25.75		29.08	
St. Dev.		5.06		3.89	

The results show that the experimental group had a more favorable performance than the control group. In the control group, 22 students (55.00%) were at the Very Satisfactory level, 14 (35.00%) were Satisfactory, 2 (5.00%) were Outstanding, and 2 (5.00%) were Fairly Satisfactory. In the experimental group, 32 students (80.00%) were Very Satisfactory, 6 (15.00%) were Outstanding, and 2 (5.00%) were Satisfactory. No student in the experimental group was classified as Fairly Satisfactory or Poor. The experimental group also obtained a higher mean score of 29.08 (SD = 3.89), compared with 25.75 (SD = 5.06) for the control group. These results show that, at the end of the intervention, the experimental group performed better in the historical understanding measured by the test.

The higher performance of the experimental group may be related to the use of maps together with teacher explanations. Paivio (1986) explained that learners process information through verbal and nonverbal forms, which may work together when meaningful visual materials are used. Mayer (2009) also noted that learning can be supported when relevant visuals are presented together with clear verbal explanations. In the present study, students used printed and PowerPoint-based maps to identify places, examine territorial changes, trace movements, and connect locations with historical events. These activities may have helped students organize historical information in a more concrete and understandable way. Taylor and Plewe (2006) also reported that map-based learning can support students' understanding of geographic and historical information.

Significant Difference Between The Pretest And Posttest Results Of The Control Group In Terms Of Student Engagement

A paired-samples *t*-test was used to determine whether there was a significant change in the student engagement of the control group from pretest to posttest. The group received Traditional Lecture-Based Instruction during the four-week intervention.

Table 4 Test of Significant Difference between the pre-test and post-test results of the control group in terms of Student Engagement

Source of Difference	Mean	Standard Deviation	Mean Difference	t- value	p-value	Decision	Result
Pretest	95.13	23.31	-0.18	-0.115	0.909	Do not reject Ho	Not Significant
Posttest	94.95	20.21					
*significant at p < 0.05 (two-tailed); df=39							

The control group obtained a mean engagement score of 95.13 in the pretest and 94.95 in the posttest, with a mean difference of -0.18 . The computed *t*-value was -0.115 and the *p*-value was .909. Since the *p*-value was greater than .05, the difference was not statistically significant. Therefore, the null hypothesis was not rejected. This means that the control group did not show a significant change in student engagement during the four-week instructional period.

The finding may be related to the type of learning activities experienced by the control group. Doolittle et al. (2023) explained that active learning involves student participation, interaction, and higher-order thinking. These ideas suggest that the amount and type of student participation may influence engagement during classroom instruction. In the present study, the control group mainly received teacher explanations and guided classroom

discussions, which may have provided fewer opportunities for active participation compared with the map-based activities given to the experimental group.

The result, however, does not mean that Traditional Lecture-Based Instruction is ineffective. It only shows that the engagement scores of the control group did not change significantly during the four-week period. The result may have been affected by the length of the intervention, the classroom activities used, and the characteristics of the learners. The finding becomes more meaningful when considered with the succeeding comparison of mean gains, which determines whether the experimental group showed a significantly greater improvement in engagement than the control group.

Significant Difference Between The Pretest And Posttest Results Of The Control Group In Terms Of Historical Understanding

A paired-samples *t*-test was used to determine whether there was a significant change in the historical understanding of the control group from pretest to posttest. The group received Traditional Lecture-Based Instruction during the four-week intervention.

Table 5 Test of Significant Difference between the pre-test and post-test results of the control group in terms of Historical Understanding

Source of Difference	Mean	Standard Deviation	Mean Difference	t- value	p-value	Decision	Result
Pretest	16.65	3.21	9.10	12.990*	0.000	Reject Ho	Significant
Posttest	25.75	5.08					
*Significant at p < 0.05 (two-tailed); df=39							

The control group obtained a mean score of 16.65 in the pretest and 25.75 in the posttest, showing an increase of 9.10 points. The computed *t*-value was 12.990, with a *p*-value of .000. Since the *p*-value was lower than .05, the null hypothesis was rejected. This result shows that the control group had a statistically significant improvement in historical understanding after the four-week instructional period.

The improvement may be related to the teacher explanations and guided discussions provided during the lessons. Wineburg (2001) explained that understanding history involves placing events in their proper context rather than simply recalling information. Van Drie and Van Boxtel (2008) also emphasized the importance of historical reasoning and activities that help students develop explanations about past events. In the present study, teacher explanations and classroom discussions may have helped students understand the concepts, organize important information, and make connections among the historical topics presented.

The significant improvement also shows that students in the control group learned during the intervention. However, this result does not mean that Traditional Lecture-Based Instruction was more effective than Map-Integrated Instruction. The paired-samples *t*-test only shows that the control group improved from pretest to posttest. The comparison of the mean gains of the two groups provides a better basis for determining whether the amount of improvement differed between the two instructional approaches.

Significant Difference Between The Pretest And Posttest Results Of The Experimental Group In Terms Of Student Engagement

A paired-samples *t*-test was used to determine whether there was a significant change in the student engagement of the experimental group from pretest to posttest. The students received Map-Integrated Instruction during the four-week intervention. The analysis compared the pretest and posttest means, mean gain, computed *t*-value, and *p*-value. The result was evaluated at the 0.05 level of significance.

Table 6 Test of Significant Difference between the pre-test and post-test results of the experimental group in terms of Student Engagement

Source of Difference	Mean	Standard Deviation	Mean Difference	t- value	p-value	Decision	Result
Pretest	92.07	21.08	12.53	5.497*	0.000	Reject Ho	Significant
Posttest	104.60	24.89					
*Significant at p < 0.05 (two-tailed); df=39							

The experimental group obtained a mean engagement score of 92.07 in the pretest and 104.60 in the posttest, giving a mean gain of 12.53 points. The computed t -value was 5.497, with a p -value of .000. Since the p -value was lower than .05, the null hypothesis was rejected. This result shows that the experimental group had a statistically significant increase in student engagement after the four-week use of Map-Integrated Instruction.

The improvement may be related to the opportunities for active participation provided during the map-based activities. Students were asked to locate places, trace movements, examine territorial changes, and discuss relationships between places and historical events using printed and PowerPoint-based maps. Lucero et al. (2024) reported that mapping activities can involve students in historical reasoning and knowledge construction. Doolittle et al. (2023) also described active learning as involving participation, engagement, and higher-order thinking. These ideas support the possibility that the map-based tasks gave students more opportunities to participate directly in the lessons.

Significant Difference Between The Pretest And Posttest Results Of The Experimental Group In Terms Of Historical Understanding

A paired-samples t -test was used to determine whether there was a significant change in the historical understanding of the experimental group from pretest to posttest. The students received Map-Integrated Instruction during the four-week intervention. The analysis compared their scores before and after the intervention using the mean gain, computed t -value, and p -value. The result was evaluated at the 0.05 level of significance.

Table 7 Test of Significant Difference between the pre-test and post-test results of the experimental group in terms of Historical Understanding

Source of Difference	Mean	Standard Deviation	Mean Difference	t- value	p-value	Decision	Result
Pretest	16.58	2.75	12.50	17.116*	0.000	Reject Ho	Significant
Posttest	29.08	3.88					
*Significant at p < 0.05 (two-tailed); df=39							

The experimental group obtained a mean score of 16.58 in the pretest and 29.08 in the posttest, resulting in a mean gain of 12.50 points. The computed t -value was 17.116 and the p -value was .000. Since the p -value was below .05, the null hypothesis was rejected. This result shows that the experimental group had a statistically significant improvement in historical understanding after the four-week intervention.

The improvement may be related to the use of maps during the lessons. Students were given opportunities to identify locations, trace movements, examine territorial changes, and connect geographical settings with historical events. Parellada et al. (2024) discussed the value of maps in helping students examine historical events together with changes in places and territories. Taylor and Plewe (2006) also found that map-based learning can

support students' understanding of historical and geographical information. These findings provide support for the possibility that the map activities in the present study helped students organize historical information and understand events in relation to their locations.

The result may also be explained by Paivio's (1986) Dual-Coding Theory, which suggests that verbal and visual information can work together during learning. Mayer (2009) similarly explained that relevant visual materials, when combined with clear verbal explanations, may support students' understanding. In this study, the maps were used together with teacher explanations and classroom activities, giving students another way to process the historical content. However, the significant improvement within the experimental group alone does not establish that Map-Integrated Instruction was more effective than the control approach. Since the control group also improved significantly, the comparison of mean gains between the two groups provides a better basis for examining the difference in their improvement.

Significant Mean Gain Difference Between The Experimental And Control Groups In Terms Of Student Engagement

The mean gains in student engagement were compared to determine whether the two groups differed significantly in their improvement from pretest to posttest. An independent-samples *t*-test was used to compare the mean gains of the experimental and control groups. The analysis included the mean gain and standard deviation of each group, the difference between their mean gains, computed *t*-value, and *p*-value. This comparison was used to determine whether the two instructional approaches were associated with different amounts of change in student engagement.

Table 8 Test of Significant Mean Gain Difference on the Pre-test and Post-test scores between the two groups in terms of Student Engagement

Source of Difference	Mean Gain	Standard Deviation	Mean Gain Difference	t- value	p-value	Decision	Result
Control	-0.18	9.58	12.70	4.641*	0.000	Reject Ho	Significant
Experimental	12.53	14.41					
*significant at p < 0.05 (two-tailed);df=78							

The control group had a mean gain of -0.18 ($SD = 9.58$), while the experimental group had a mean gain of 12.53 ($SD = 14.41$). The difference between the two mean gains was 12.70 points. The computed *t*-value was 4.641 and the *p*-value was $.000$. Since the *p*-value was below $.05$, the null hypothesis was rejected. This result shows that the experimental group had a significantly greater improvement in student engagement than the control group.

The difference may be related to the type of learning activities provided to the students. In the experimental group, students worked with printed and PowerPoint-based maps to locate places, trace movements, examine territorial changes, and discuss relationships between geography and historical events. Doolittle et al. (2023) explained that active learning involves student participation, engagement, and higher-order thinking. Lucero et al. (2024) also reported that mapping activities can involve students in historical reasoning and knowledge construction. These studies support the possibility that the map-based tasks gave students more opportunities to participate and interact with the lesson content.

The result also shows a clear difference from the control group, which had a small and statistically nonsignificant decrease in engagement. The experimental group, in contrast, showed a positive and significantly greater mean gain. This difference may be connected to the students' direct interaction with visual materials and the active tasks included in the map-integrated lessons. However, because the study used intact groups and did not involve random assignment, the finding should be interpreted with caution. The significantly greater mean gain suggests

that Map-Integrated Instruction may have contributed to improved student engagement, but the result does not establish that the intervention alone caused the difference.

Significant Mean Gain Difference Between The Experimental And Control Groups In Terms Of Historical Understanding

The final analysis compared the improvement in historical understanding between the two groups. An independent-samples *t*-test was used to determine whether the difference between their mean gains was statistically significant. The mean gain was obtained by comparing the students' pretest and posttest scores. This analysis is important because both groups improved, and it shows whether the amount of improvement differed between students who received Map-Integrated Instruction and those who received Traditional Lecture-Based Instruction.

Table 9 Test of Significant Mean Gain Difference on the Pre-test and Post-test scores between the two groups in terms of Historical Understanding

Source of Difference	Mean Gain	Standard Deviation	Mean Gain Difference	t- value	p-value	Decision	Result
Control	9.10	4.43	3.40	3.360*	0.001	Reject Ho	Significant
Experimental	12.50	4.62					
*Significant at p < 0.05 (two-tailed); df=78							

The control group had a mean gain of 9.10 points ($SD = 4.43$), while the experimental group had a higher mean gain of 12.50 points ($SD = 4.62$). The difference between the two mean gains was 3.40 points. The computed *t*-value was 3.360, with a *p*-value of .001. Since the *p*-value was less than .05, the null hypothesis was rejected. This means that the improvement in historical understanding of the experimental group was significantly greater than that of the control group.

The higher gain of the experimental group may be related to the use of maps during the lessons. Parellada et al. (2024) emphasized that historical maps can help learners examine territorial changes and understand the spatial side of historical events. Taylor and Plewe (2006) also found that map-based learning can support students' understanding of historical and geographical relationships. In the present study, the students used printed and PowerPoint-based maps to locate places, trace movements, compare territories, and connect geographical locations with historical events. These activities may have helped students organize historical information in a more visual and concrete way.

The result can also be explained through Dual-Coding Theory, which suggests that verbal and visual forms of information can work together in learning (Paivio, 1986). The experimental students did not rely only on teacher explanations; they also examined maps while discussing the historical content. This combination may have given them another way to process and remember important information. The finding is also consistent with the significant improvement found in the experimental group in the earlier analysis.

However, the improvement of the control group should also be considered. Its mean gain of 9.10 points shows that students also learned under Traditional Lecture-Based Instruction. The important difference was that the experimental group gained 12.50 points, which was significantly higher. Therefore, the findings suggest that Map-Integrated Instruction may have provided additional learning support beyond teacher explanation and discussion. Within the limits of the quasi-experimental design, the results support the use of maps as a complementary strategy in teaching World History.

Summary

This study examined the effectiveness of Map-Integrated Instruction in teaching World History to Grade 8 students at Cangawa National High School, Bohol Division, during the 2025–2026 school year. It specifically investigated whether the use of printed and PowerPoint-based maps could enhance students' engagement and historical understanding. Student engagement was considered in terms of behavioral, emotional, and cognitive dimensions, while historical understanding referred to the students' knowledge and understanding of historical facts, events, and related concepts. The findings of the study were also used as the basis for developing an Instructional Practices Improvement Plan (IPIP).

The study employed a quasi-experimental pretest-posttest design involving two intact Grade 8 sections. Section Garnet served as the experimental group, while Section Amber served as the control group. The experimental group received Map-Integrated Instruction using printed and PowerPoint-based maps, whereas the control group was taught through traditional lecture-based instruction. The intervention was implemented for four weeks. Data were collected using a validated Student Engagement Questionnaire and a researcher-made 40-item Historical Understanding Test. The data were analyzed using the mean, standard deviation, paired-samples *t*-test, and independent-samples *t*-test.

The results indicated that the control group did not experience a significant change in student engagement, although its historical understanding significantly improved following the instructional period. In contrast, the experimental group demonstrated significant improvement in both student engagement and historical understanding. Comparison of the mean gains further showed that the experimental group achieved significantly greater gains in both variables than the control group. These findings suggest that Map-Integrated Instruction may have contributed to improved engagement and historical understanding by providing learners with opportunities to examine historical information through spatial and visual representations. The findings served as the basis for the proposed Instructional Practices Improvement Plan.

Findings

Based on the results presented and discussed in Chapter 2, the study established several salient findings.

The control group did not demonstrate a significant change in student engagement after the four weeks of traditional lecture-based instruction. However, the same group demonstrated a significant improvement in historical understanding following the instructional period.

The experimental group demonstrated significant improvement in both student engagement and historical understanding following the implementation of Map-Integrated Instruction. Furthermore, when the mean gains of the two groups were compared, the experimental group obtained significantly greater gains than the control group in both student engagement and historical understanding.

The findings also provided the basis for the development of an Instructional Practices Improvement Plan (IPIP). The proposed plan is intended to strengthen the use of map-integrated strategies in World History instruction and provide a structured approach to teacher development, learning-resource preparation, classroom implementation, assessment, and instructional monitoring.

CONCLUSIONS

Based on the findings of the study, the following conclusions were drawn.

Map-Integrated Instruction may have contributed to improved student engagement in World History. The experimental group demonstrated greater improvement in engagement than the control group, suggesting that the use of printed and PowerPoint-based maps may have encouraged learners to participate more actively and interact with historical learning materials.

Map-Integrated Instruction may also have contributed to improved historical understanding. Although both groups showed improvement, the experimental group obtained greater gains than the control group. The use of

maps may have helped learners relate historical events to their locations, territories, movements, and geographical contexts, thereby supporting their understanding of selected World History concepts.

In terms of professional practice, the findings indicate that printed and PowerPoint-based maps may be used as complementary instructional resources in World History. Their purposeful integration can provide teachers with additional ways to present historical information and give learners opportunities to examine the spatial aspects of historical events.

In terms of program development, the findings provide a basis for the proposed Instructional Practices Improvement Plan (IPIP). The plan offers a structured approach for strengthening map-integrated instruction through teacher development, learning-resource preparation, classroom implementation, assessment, and instructional monitoring.

In terms of policy implementation, the findings support continued efforts to promote learner-centered and visual instructional practices consistent with the objectives of the MATATAG Curriculum. School administrators and curriculum implementers may provide teachers with appropriate resources, professional development, and implementation support to encourage the sustained and purposeful use of map-integrated strategies in World History instruction.

RECOMMENDATIONS

In light of the findings and conclusions of the study, the Araling Panlipunan Department of Cangawa National High School may adopt and implement the proposed Instructional Practices Improvement Plan (IPIP) to strengthen the use of map-integrated strategies in World History instruction. The plan may serve as a guide for teachers in incorporating printed and PowerPoint-based maps into appropriate lessons and classroom activities.

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