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Higher-Order Thinking Skill Strategies in Araling Panlipunan 9: Implementation and Their Effects on Learners' Academic Performance

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Abstract — This research has sought to establish the implementation extent of and perceived effects of HOTS strategies in Araling Panlipunan 9 and its relation to students' academic performance. A descriptive-comparative-correlational type of research design was employed, and data were gathered from Grade 9 learners who were selected through stratified random sampling to ensure that the samples are proportionally represented across schools. A self-developed researcher questionnaire on the extent of HOTS strategy implementation and perceived effects on seven learner skills domains was pilot-tested and showed excellent internal consistency. Learners' academic performance was secured from official first grading records, and the analysis involved descriptive statistics, non-parametric difference testing, and correlation procedures appropriate to the data distribution. It was revealed that the HOTS strategies are generally implemented at a high level; inquiry-based, problem-based, debate, and project-based are more frequently used, while reflective learning and Socratic questioning are the least consistently applied. Learners reported substantial increases in critical thinking, problem-solving, communication, creativity, engagement, collaboration, and self-reflection. On the other hand, the academic performance is found satisfactory. Meaningful associations have emerged linking stronger implementation of HOTS with higher perceived skill development and better achievement. Indeed, this study points out that HOTS-based instruction meaningfully undergirds cognitive and participatory learning in Araling Panlipunan 9; thus, schools may further strengthen structured professional development toward enhancing consistently diversified HOTS integration.

Keywords: Higher-Order Thinking Skills, Araling Panlipunan 9, Academic Performance, Learner Engagement, School Learning Action Cell

I. INTRODUCTION

This research shall delve into the extent of implementation and perceived effects of the ten identified higher-order thinking skills strategies from Araling Panlipunan 9, such as inquiry-based learning, problem-based learning, debates, case analysis, concept mapping, and reflective tasks. It further examines how such implementations are perceived to influence critical thinking, problem-solving, communication, creativity, student engagement, collaboration, and independent learning, and how these perceptions relate to academic performance.

The broader context recognizes that complex contemporary social, political, and economic issues demand social studies teaching to move beyond rote memorization to foster critical, analytical, and participatory thinking. Reform curricula reinforce learner-centered and inquiry-driven approaches intended to embed HOTS, but international and national monitoring reports express a school student demonstration of critical and problem-solving competencies that continue to be below expectations. The potential of inquiry tasks, debates, case analyses, and project-based learning to engender HOTS has been established; however, practice within classrooms is often limited by the paucity of exemplars, inadequate teacher preparation, and resource constraints. These are contributing factors to students employing recall approaches and experiencing challenges when they engage with analytical and evaluative tasks.

Previous studies about the integration of HOTS have mostly been confined to STEM disciplines or early-grade contexts; hence, junior high school social studies, especially Araling Panlipunan 9, remains understudied. Little is known about how the strategies of HOTS are implemented in actual practice, how learners perceive their impacts, and how these perceptions relate to academic performance. Investigating these gaps calls for an analysis that covers learner profile information, extent of HOTS integration, perceived impacts on thinking and engagement, and corresponding outcome measures.

This present study aims to find out (1) to what extent ten HOTS strategies are enacted in Araling Panlipunan 9, and (2) the perceived effects of these said strategies on a variety of cognitive

and engagement-related outcomes, and its relation to learners' academic performance. In so doing, this study hopes to inform the development of an evidence-based School Learning Action Cell (SLAC) intervention that will be aimed at strengthening HOTS-aligned instructional practices in social studies.

Literature Review

HOTS have been generally conceptualized as multidimensional, involving analytical, critical, creative, problem-solving, and metacognitive processes beyond factual recall and closely related to 21st-century competencies including critical thinking, collaboration, creativity, and communication cited by Liu et al. (2024) and Loyens et al. (2023). International literature in mathematics, science, language, and technical domains consistently suggests problem-based, project-based, and inquiry-driven tasks—especially those that require ill-structured problems, multiple solution pathways, and justification of the decisions made—as powerful triggers for HOTS, given they would be thoroughly scaffolded through questioning, feedback, and metacognitive support. Recent studies include Gradini et al. (2025), Takko (2020), and Sharma et al. (2020). In social studies, HOTS has been framed as high-inferential thinking in terms of contested public issues that requires learners to interrogate sources, weigh competing narratives, and justify positions, with debate, case studies, Socratic questioning, and issue-based projects as core strategies. Aashamar (2024) provides additional details on this matter. Policy frameworks also put front and center HOTS and 21st-century skills. The Basic Education Development Plan 2030 and subsequent MATATAG curriculum documents name critical thinking, problem-solving, creativity, communication, collaboration, and digital literacy as core outcomes to be embedded across learning areas and position Araling Panlipunan as a strategic locus for cultivating democratic participation, social responsibility, and global citizenship via inquiry, issue analysis, and authentic performance tasks while giving few subject-specific exemplars and thus leaving considerable room at the classroom level for interpretation. Empirical studies, both international and Philippine, reinforce this vision conceptually but point to gaps in implementation. Meta-analytic and quasi-experimental studies report positive effects, with inquiry-based learning, HOTS-oriented item

practice, flipped and blended designs, narrative assessments, and active learning stressing students' critical thinking and problem-solving, aside from reporting the fact that many classroom tasks remain procedural, exam-focused, or recall-oriented. These are cited by Arifin et al. (2025), Artika (2023), Zona (2025), and Özpir et al. (2025). Local studies in Araling Panlipunan and other social studies contexts illustrate how the pedagogies of debates, contextualized teaching, current-events discussions, game-based and digital platforms, simulations, and collaborative projects can improve reasoning, map and data analysis, inference, and engagement; at the same time, the same body of literature lists limitations on class size, materials, assessment, and teachers' lack of confidence to design HOTS-aligned tasks (e.g., Fernandez, 2025; Apuyao, 2018; Lim, 2018; Lopez, 2019; Dames, 2018; Talento, 2019; Geraldo, 2021). Investigations into teacher cognition further uncover a disconnect between positive attitude toward HOTS and limited self-reported or observed implementation, with professional development arising as a strong predictor of practice (Swaran Singh et al., 2023; Ulu-Kalin, 2024). Bibliometric reviews also reveal that HOTS research remains concentrated in STEM and language education, with social studies-and Araling Panlipunan, in particular-relatively underrepresented (Bulut, 2025). Taken together, such a body of literature points out how HOTS and the 21st-century skills themselves are conceptually established and reflected in policy, but there is a void in empirical work in junior high school social studies that simultaneously explores the perceived extent of implementation of HOTS strategy, its perceived effects on critical, collaborative, and self-directed learning, and its linkage to academic performance from the perspectives of learners-a knowledge gap that this study seeks to address within Araling Panlipunan 9.

II. METHODOLOGY

This study followed the descriptive–comparative–correlational design to investigate the implementation and perceived effects of HOTS strategies in Araling Panlipunan 9 and their relationship with learners' academic performance. Respondents included Grade 9 learners enrolled in Araling Panlipunan in selected public secondary schools during the School Year 2025–2026. Stratified random sampling was utilized to achieve a proportionate number of samples from the

school allocations of the total number of students. Data were collected using a researcher-prepared structured questionnaire with three parts, namely, learners' profile (age, sex, school, and average monthly family income), perceived extent of implementation of ten HOTS strategies, and perceived effects on seven key domains of learner skills. The instrument was subjected to expert validation and pilot-testing, yielding an excellent internal consistency of Cronbach's alpha = .971 for implementation and .944 for effects. Academic performance was determined through official first grading period marks obtained from school records with appropriate authorization. Questionnaires were administered personally after proper institutional approvals and informed consent had been obtained, and responses were subsequently checked, encoded, and tabulated. Descriptive statistics were employed in summarizing profiles, HOTS implementation, perceived effects, and performance levels (frequency, percentage, weighted mean, standard deviation). Tests of normality were employed to determine the appropriate nonparametric procedures; group differences were analyzed using the Kruskal–Wallis H test, while relationships among HOTS implementation, perceived effects, and academic performance were assessed using Spearman rank-order correlation at 0.05 level of significance.

Research Design

This research adopted a descriptive-comparative-correlational design to describe learner profiles, the HOTS strategy implementation, perceived effects, and academic performance; to compare groups across profile variables; and to examine associations among key variables without experimental manipulation. This design allowed for establishing baseline patterns, testing differences across naturally occurring groups, and determining if higher magnitudes of HOTS strategy exposure were associated with more positive perceived outcomes and superior academic performance.

Sample of the Study

These are Grade 9 students who were enrolled in Araling Panlipunan in selected public secondary schools during School Year 2025–2026. They were the direct beneficiaries of instruction

oriented toward higher-order thinking skills. Stratified random sampling was used, in which each school that offered Grade 9 Araling Panlipunan was considered a stratum, and a proportionate number of learners were randomly selected to ensure adequate representation of schools and alignment with the observed distribution of learners. The learners were described in terms of age, sex, school, and average monthly family income to enable comparative and relational analyses.

Measures

Data collection Data were collected using a researcher-developed, structured questionnaire constructed in keeping with the established guideline for developing reliable and valid educational instruments. The instrument had three parts: (1) a demographic profile comprising age, sex, school, and family income; (2) perceived extent of implementation of ten HOTS strategies, namely inquiry-based learning, problem-based learning, debate, case analysis, role-play, concept mapping, projectbased learning, reflective journaling, Socratic questioning, and comparative analysis, rated on a five-point Likert scale; and (3) perceived effects on seven domains of learner skills, namely critical thinking, problem-solving, communication, creativity, engagement, collaboration, and self-reflection, also on a five-point scale. Excellent internal consistency was obtained during pilot testing, with $\alpha = .971$ for implementation and $\alpha = .944$ for effects. Academic performance data gathered from official records for the first grading period.

Procedures

The data collection proceeded after obtaining approvals from the relevant academic and education authorities, after informing school administrators of the study's aims, procedures, and ethical safeguards. Accompanied by orientation sessions for the respective focal persons, stratified random sampling was adopted to determine the learner respondents. Informed consent was sought and obtained from the learners and their parents before the questionnaires were administered. Subjected to expert validation, with a computed validity index of 4.47 interpreted as excellent, the questionnaires were personally administered during non-disruptive periods, while retrieved forms were collected immediately thereafter to maximize the response rate. Official first grading period

marks in Araling Panlipunan 9 were then retrieved from school records with proper authorization. All responses were carefully checked, encoded, and organized for statistical analysis.

Data Processing

Frequency counts and percentage distributions were used to summarize demographic profiles of the learners. Weighted means and standard deviations described the perceived extent of HOTS implementation and perceived effects on learner skills. Academic performance data, on the other hand, were analyzed through frequency and percentage distributions across performance categories. Normality was assessed by Kolmogorov–Smirnov and Shapiro–Wilk tests and qualified non-normal distributions that justify the use of nonparametric procedures. The Kruskal–Wallis H test was utilized to test significant differences in HOTS implementation and perceived effects across profile groups, while Spearman rank-order correlation was used to relate HOTS implementation, perceived effects, and academic performance. All the hypotheses were tested at the 0.05 level of significance.

III. RESULTS AND DISCUSSION

Extent of Implementation of Higher-Order Thinking Skills (HOTS) Strategies in Teaching Araling Panlipunan

This section delimits the degree to which higher-order thinking skills strategies are adopted in the teaching of Araling Panlipunan, as perceived by the learners. It will define how different HOTS strategies are translated into practice inside the classroom and establish the foundation for understanding their impact on the skills and academic performance of learners.

TABLE 1
EXTENT OF IMPLEMENTATION OF HIGHER-ORDER THINKING SKILLS (HOTS) STRATEGIES IN TEACHING ARALING PANLIPUNAN IN TERMS OF INQUIRY-BASED LEARNING

Item	Mean	Interpretation
16. Encouraging learners to ask questions that stimulate investigation and exploration.	4.52	Very Great Extent
17. Guiding students in formulating hypotheses or possible explanations about social issues.	4.73	Very Great Extent
18. Facilitating learner-centered inquiry activities that promote discovery and analysis.	3.87	Great Extent
19. Using primary and secondary sources to support inquiry-based investigations.	3.75	Great Extent
20. Allowing students to draw conclusions based on gathered data and evidence.	4.22	Very Great Extent
Overall Mean	**4.22**	**Very Great Extent**

Legend: *4.21-5.00= Very Great Extent; 3.41-4.20= Great Extent; 2.61-3.40= Moderately Extent; 1.81-2.60= Low Extent; 1.00-1.80= Very Low Extent*

As shown in Table 1, inquiry-based learning was extensively practiced, with an overall mean of 4.22, meaning that the teachers were consistently encouraging the students to explore, raise questions, and present evidence-based reasoning in Araling Panlipunan. On the one hand, the highest-rated indicator, "Guiding students in formulating hypotheses or possible explanations about social issues" (M = 4.73), indicates a greater emphasis on analytical skills and investigation driven by curiosity, aligning well with contemporary curriculum imperatives that have called for an in-depth probe into the social realities. The lowest mean of 3.75 for "Using primary and secondary sources to support inquiry-based investigations" indicated a limited integration of evidence-gathering activities. This mismatch may be caused by certain factors such as scarcity of resources, pressures of time, and difficulties in finding valid reference materials. These may limit the students in validating sources and undertaking critical interpretation. This is in accord with Lopez and Santiago (2022) and Molina (2023), who have cited how inquiry is compromised when evidence-based investigation is supported inadequately; hence, there is the need for improving

resource access and digital literacy to sustain authentic and high-order inquiry within the social studies discipline.

TABLE 2
EXTENT OF IMPLEMENTATION OF HIGHER-ORDER THINKING SKILLS (HOTS) STRATEGIES IN TEACHING ARALING PANLIPUNAN IN TERMS OF PROBLEM-BASED LEARNING

Item	Mean	Interpretation
1. Presenting real-life social issues or community problems for learners to solve collaboratively.	4.86	Very Great Extent
2. Guiding students to identify, define, and analyze Araling Panlipunan-related problems.	4.72	Very Great Extent
3. Encouraging learners to propose and justify possible solutions to societal challenges.	3.65	Great Extent
4. Integrating problem-solving activities that require critical and creative thinking.	3.72	Great Extent
5. Using reflective discussions to evaluate the effectiveness of proposed solutions.	3.75	Great Extent
Overall Mean	**4.14**	**Great Extent**

Legend: *4.21-5.00= Very Great Extent; 3.41-4.20= Great Extent; 2.61-3.40= Moderately Extent; 1.81-2.60= Low Extent; 1.00-1.80= Very Low Extent*

As reflected in Table 2, problem-based learning is well implemented, as indicated by the overall mean of 4.14, implying that the facilitators engage the learners in solving authentic social or community problems. Notably, the highest-rated item, “Presenting real-life social issues or community problems for learners to solve collaboratively” (M = 4.86), emphasizes comprehensive engagement with contextualized scenarios that promote experiential and participative learning and support important 21st-century competencies like teamwork, creativity, and critical problem-solving. On the contrary, the lowest-rated indicator was “Encouraging learners to propose and justify possible solutions to societal challenges” (M = 3.65), which implies that less consistent emphasis is placed on the justification phase in the PBL process. Reasons may include a lack of instructional time, inadequate scaffolding of argumentation, or fewer chances for public presentation, factors that hinder the evaluation of solution feasibility and implications. In this regard, the findings are consistent with those of Villanueva and Ramos (2021) and Han and Kim

(2022), who noted that even though contextualized problem-solving had its merits, structured feedback and reflective evaluation were necessary in ensuring that PBL produced well-reasoned, higher-order solutions rather than the mere identification of problems.

TABLE 3
EXTENT OF IMPLEMENTATION OF HIGHER-ORDER THINKING SKILLS (HOTS) STRATEGIES IN TEACHING ARALING PANLIPUNAN IN TERMS OF DEBATE AND ARGUMENTATION

Item	Mean	Interpretation
1. Organizing structured debates to encourage logical reasoning and expression of opinions.	3.53	Great Extent
2. Guiding students in developing evidence-based arguments about historical or civic issues.	3.65	Great Extent
3. Promoting respectful exchange of differing viewpoints during class discussions.	4.62	Very Great Extent
4. Training learners to support claims with facts, data, or credible sources.	4.53	Very Great Extent
5. Assessing students' reasoning, articulation, and teamwork during debates.	4.32	Very Great Extent
Overall Mean	**4.13**	**Very Great Extent**

Legend: *4.21-5.00= Very Great Extent; 3.41-4.20= Great Extent; 2.61-3.40= Moderately Extent; 1.81-2.60= Low Extent; 1.00-1.80= Very Low Extent*

Table 3 shows that debate and argumentation strategies are implemented to a great extent, with an overall mean of 4.13. This would mean that the teachers more frequently engage learners in reasoning- and communication-rich discussions. The highest-rated item, "Promoting respectful exchange of differing viewpoints during class discussions" (M = 4.62), reveals a strong emphasis on open-minded dialogue and respectful discourse as cardinal features of civic reasoning and historical understanding. On the other hand, the lowest mean of 3.53, represented by the item "Organizing structured debates to encourage logical reasoning and expression of opinions," indicates that formal debate formats are less consistently used. Here, potential constraints such as time limitations, large class sizes, or limited teacher confidence may impede the integration of structured argumentation, reducing the opportunities afforded learners to apply evidence and logic in a systematic way. Hence, students can develop expressive competencies without a corresponding strengthening of argumentative rigor. These findings are consistent with Cabahug

and De Vera (2023) and Tiongco (2022), who note that while less formal discussions are very common, structured debates-instruments which significantly enhance critical and analytical thinking-remain largely unutilized and need more institutional support for formal debate-based instruction.

TABLE 4
EXTENT OF IMPLEMENTATION OF HIGHER-ORDER THINKING SKILLS (HOTS) STRATEGIES IN TEACHING ARALING PANLIPUNAN IN TERMS OF CASE STUDY/ISSUE ANALYSIS

Item	Mean	Interpretation
1. Presenting local or national case studies relevant to Araling Panlipunan topics.	3.62	Great Extent
2. Engaging students in analyzing the causes and effects of real-world social issues.	4.84	Very Great Extent
3. Facilitating group discussions that evaluate multiple perspectives on a case.	4.55	Very Great Extent
4. Encouraging students to recommend evidence-based solutions to analyzed issues.	4.72	Very Great Extent
5. Summarizing key lessons and implications derived from each case analysis.	3.62	Great Extent
Overall Mean	**4.27**	**Very Great Extent**

Legend: *4.21-5.00= Very Great Extent; 3.41-4.20= Great Extent; 2.61-3.40= Moderately Extent; 1.81-2.60= Low Extent; 1.00-1.80= Very Low Extent*

Table 4 shows that case study or issue analysis was utilized to a great extent, with an overall mean of 4.27, reflecting frequent usage of real-world cases in developing the learners' analytical and evaluative competencies. The highest-rated item, "Engaging students in analyzing the causes and effects of real-world social issues" (M = 4.84), demonstrates a strong integration of contextual analysis that enables learners to evaluate the relationships of events and enhance their critical understanding of problems in society. On the other hand, the lowest means, 3.62, for both "Presenting local or national case studies relevant to Araling Panlipunan topics" and "Summarizing key lessons and implications derived from each case analysis," demonstrate a lack of emphasis on local contextualization and reflective synthesis. This deficiency may be due to a lack of localized materials or time constraints that hinder learners from synthesizing insights and applying them

outside of class discussions. The findings support those of Garcia and Torres (2021) and Cheng (2022), who found that synthesis and localization are rarely practiced despite being important in enhancing relevance and real-world transfer of higher-order thinking skills.

TABLE 5
EXTENT OF IMPLEMENTATION OF HIGHER-ORDER THINKING SKILLS (HOTS) STRATEGIES IN TEACHING ARALING PANLIPUNAN IN TERMS OF ROLE-PLAYING / SIMULATION

Item	Mean	Interpretation
1. Assigning students specific roles to portray historical figures or community members.	3.72	Great Extent
2. Simulating real-life scenarios to deepen understanding of civic and cultural concepts.	4.28	Very Great Extent
3. Encouraging empathy and perspective-taking through role performance.	4.09	Great Extent
4. Facilitating debriefing sessions to connect role-play experiences with lesson concepts.	3.28	Moderately Extent
5. Using role-playing as an assessment tool to measure comprehension and application.	4.68	Very Great Extent
Overall Mean	**4.01**	**Great Extent**

Legend: *4.21-5.00= Very Great Extent; 3.41-4.20= Great Extent; 2.61-3.40= Moderately Extent; 1.81-2.60= Low Extent; 1.00-1.80= Very Low Extent*

The results presented in Table 5 show that role-playing or simulation was extensively used as reflected in the overall mean of 4.01, indicating that dramatization and experiential activities are frequently employed by teachers to enhance the teaching of Araling Panlipunan. The highest-rated item, "Use of role-play as an assessment of understanding and application" (M = 4.68), would indicate that teachers consider simulation as a feasible method for measuring understanding through authentic performance aligned with DepEd's performance-based assessment. On the other hand, the lowest mean rating of 3.28 was recorded for the item "Debriefing after role-play to connect it to lesson concepts". This indicates that reflective processing of experience is not as consistently integrated. The pressure of time and the necessity of covering several competencies may drive teachers to push forward with implementation without allowing structured synthesis,

thus diminishing the deeper cognitive advantages of the role-play. This suggests that unless there is guided debriefing, learners may fail to fully realize conceptual connections or higher cognitive insights. These results are in consonance with Soriano (2022) and Hanif and Javed (2021), who noted that post-activity reflection is necessary for the transformation of role-playing from mere acting out into a robust vehicle for higher-order thinking.

TABLE 6
EXTENT OF IMPLEMENTATION OF HIGHER-ORDER THINKING SKILLS (HOTS) STRATEGIES IN TEACHING ARALING PANLIPUNAN IN TERMS OF CONCEPT MAPPING / GRAPHIC ORGANIZERS

Item	Mean	Interpretation
1. Guiding students in constructing concept maps to organize ideas and relationships.	4.15	Great Extent
2. Using visual tools (charts, diagrams, webs) to enhance comprehension of complex topics.	4.35	Very Great Extent
3. Encouraging students to summarize key concepts through graphic representation.	4.78	Very Great Extent
4. Integrating concept mapping in group or individual learning tasks.	3.89	Great Extent
5. Assessing students' conceptual understanding through their completed organizers.	4.76	Very Great Extent
Overall Mean	**4.39**	**Very Great Extent**

Legend: *4.21-5.00= Very Great Extent; 3.41-4.20= Great Extent; 2.61-3.40= Moderately Extent; 1.81-2.60= Low Extent; 1.00-1.80= Very Low Extent*

Table 6 shows that concept mapping and graphic organizers were used to a great extent, as reflected by the overall mean of 4.39, where there was substantial use of visual tools to help learners organize and connect ideas. The highest rated item in this category, "Encouraging students to summarize key concepts through graphic representation" (M = 4.78), indicates that instructors are effective in encouraging synthesis and visual organization so that learners can perceive the relationships among historical and civic concepts to support deeper conceptual understandings. In contrast, the lowest mean, 3.89 for "Integrating concept mapping in group or individual learning

tasks," indicates that concept mapping is less consistently employed as an interactive, collaborative activity. This might signal a reliance on teacher-generated visuals rather than on co-created maps that stimulate discussion and shared meaning-making. This could suggest that learners may not fully reap the higher-order thinking benefits associated with the collaborative construction of concept maps. There is consistency between this finding and Santos and del Rosario (2023) and Lim and Huang (2021), who noted that though teachers value graphic organizers, realizing their cognitive benefits requires structured, participatory use rather than mere passivity.

TABLE 7
EXTENT OF IMPLEMENTATION OF HIGHER-ORDER THINKING SKILLS (HOTS) STRATEGIES IN TEACHING ARALING PANLIPUNAN IN TERMS OF PROJECT-BASED LEARNING

Item	Mean	Interpretation
1. Assigning long-term projects that integrate Araling Panlipunan concepts with real-world issues.	4.85	Very Great Extent
2. Encouraging students to plan, design, and execute projects collaboratively.	4.43	Very Great Extent
3. Monitoring project milestones and providing feedback throughout the process.	3.72	Great Extent
4. Allowing learners to present project outputs to classmates or community audiences.	4.80	Very Great Extent
5. Evaluating projects based on relevance, creativity, and application of learned concepts.	4.56	Very Great Extent
Overall Mean	**4.47**	**Very Great Extent**

Legend: *4.21-5.00= Very Great Extent; 3.41-4.20= Great Extent; 2.61-3.40= Moderately Extent; 1.81-2.60= Low Extent; 1.00-1.80= Very Low Extent*

As shown in Table 7, the extent to which PBL was employed is reflected in the overall mean of 4.47. This indicates that teachers consistently use authentic, long-term projects that extend knowledge of Araling Panlipunan concepts. The highest-ranked item, "Assigning long-term projects that integrate Araling Panlipunan concepts with real-world issues" (M = 4.85), reflects a strong connection between learning in the classroom and real-life concerns, thus giving rise to

civic awareness, creativity, and applied problem-solving. By contrast, the lowest mean of 3.72 for the statement "Monitoring project milestones and providing feedback throughout the process" reveals a diminished emphasis on sustained progress monitoring, perhaps because class sizes are large and there is only so much instructional time. This can limit scaffolding opportunities, probably leading to varied project qualities and lost opportunities for deeper learning. These results are consistent with Cruz and Villamor (2022) and Chua (2021), in whose studies it was also reported that limited formative feedback has lessened the full force of PBL, emphasizing again the need for structured mentorship and continuous feedback loops to maximize students' higher-order thinking and performance of the project.

TABLE 8
EXTENT OF IMPLEMENTATION OF HIGHER-ORDER THINKING SKILLS (HOTS) STRATEGIES IN TEACHING ARALING PANLIPUNAN IN TERMS OF REFLECTIVE LEARNING/JOURNALING

Item	Mean	Interpretation
1. Encouraging learners to maintain journals reflecting on their learning experiences.	3.67	Great Extent
2. Guiding students in connecting lesson content with personal insights and values.	4.89	Very Great Extent
3. Allowing time for reflection after discussions, projects, or debates.	4.98	Very Great Extent
4. Using reflection activities to assess students' depth of understanding.	4.57	Very Great Extent
5. Promoting continuous self-assessment through reflective writing or sharing.	4.95	Very Great Extent
Overall Mean	**4.61**	**Very Great Extent**

Legend: *4.21-5.00= Very Great Extent; 3.41-4.20= Great Extent; 2.61-3.40= Moderately Extent; 1.81-2.60= Low Extent; 1.00-1.80= Very Low Extent*

Table 8 reveals that reflective learning and journaling were applied to a very great extent, with an overall mean of 4.61, which indicates that teachers strongly nurture reflection as an avenue for deep learning and self-evaluation. The highest indicator, "Allowing time for reflection after

discussions, projects or debates" (M = 4.98), suggests that reflection is regularly embedded into instruction and thereby fosters metacognitive engagement by helping learners internalize insights, values, and civic conceptions. On the other hand, the lowest mean of 3.67 for "Encouraging learners to maintain journals reflecting on their learning experiences" suggests that written journaling is less frequently applied. This could reflect limitations in the form of time to write, learner reluctance, or teacher preference for oral reflection. Such suggestions can be made to imply that while reflective thinking is fostered, opportunities for structured written introspection—so crucial for sustained metacognitive development—remain scant. These findings also support the work of Garzon and Bautista (2020) and Lopez and Ramos (2021) who say that reflective writing enhances critical thinking and autonomous learning but requires reinforcement to maximize its benefits.

TABLE 9
EXTENT OF IMPLEMENTATION OF HIGHER-ORDER THINKING SKILLS (HOTS) STRATEGIES IN TEACHING ARALING PANLIPUNAN IN TERMS OF SOCRATIC QUESTIONING

Item	Mean	Interpretation
1. Asking probing questions to stimulate critical and analytical thinking.	4.97	Very Great Extent
2. Guiding students to justify their responses with logical reasoning.	4.87	Very Great Extent
3. Encouraging learners to question assumptions and examine underlying beliefs.	3.70	Great Extent
4. Facilitating dialogues that lead students to discover deeper meanings in the lesson.	3.09	Moderately Extent
5. Using Socratic questioning to assess comprehension and promote active participation.	4.78	Very Great Extent
Overall Mean	**4.28**	**Very Great Extent**

Legend: *4.21-5.00= Very Great Extent; 3.41-4.20= Great Extent; 2.61-3.40= Moderately Extent; 1.81-2.60= Low Extent; 1.00-1.80= Very Low Extent*

Table 9 shows that Socratic questioning was utilized to a great extent, with an overall mean of 4.28, indicating that the respondents are most likely using guided questioning to develop critical reasoning in Araling Panlipunan 9. The highest mean of 4.97 (Very Great Extent) for the item "Asking probing questions to stimulate critical and analytical thinking" indicates that teachers challenge assumptions and facilitate reflective inquiry to a very great extent in order to support deeper analysis of social and historical issues. On the other hand, the lowest mean of 3.09 (Moderate Extent) for "Facilitating dialogues that lead students to discover deeper meanings in the lesson" points to less consistent practice of extended interpretive dialogue. This may be partly due to time constraints, large class sizes, or a pedagogical focus on content coverage that limits the possibility for learners to build meaning and synthesize insights. These findings are consistent with those of Ramirez (2021) and Nguyen and Lo (2022) that, coupled with sustained reflective dialogue, Socratic questioning develops analytical competence; thus, the depth, and not merely the presence, of questioning determines whether it is effective in developing higher-order thinking.

TABLE 10
EXTENT OF IMPLEMENTATION OF HIGHER-ORDER THINKING SKILLS (HOTS) STRATEGIES IN TEACHING ARALING PANLIPUNAN IN TERMS OF COMPARATIVE ANALYSIS

Item	Mean	Interpretation
1. Guiding students to compare and contrast historical events, ideas, or systems.	4.26	Very Great Extent
2. Encouraging learners to identify similarities and differences among cultures or regions.	4.57	Very Great Extent
3. Using comparison tasks to highlight cause-and-effect relationships in history or society.	4.87	Very Great Extent
4. Facilitating discussions that evaluate lessons learned from comparative studies.	4.05	Great Extent
5. Assessing learners' ability to synthesize insights from comparative analyses.	4.09	Great Extent
Overall Mean	**4.37**	**Very Great Extent**

Legend: *4.21-5.00= Very Great Extent; 3.41-4.20= Great Extent; 2.61-3.40= Moderately Extent; 1.81-2.60= Low Extent; 1.00-1.80= Very Low Extent*

Table 10 shows that comparison strategies were used to a considerable extent, with an overall mean of 4.37. The highest-rated indicator, "Using comparison tasks to highlight cause-and-effect relationships in history or society" (M = 4.87), shows that teachers use comparison activities quite well as a teaching technique for helping learners understand interconnections between historical events or patterns at the societal level. This suggests that comparison tasks are fostering analysis and relational thinking in Araling Panlipunan. The lowest mean rating (4.05) for "Facilitating discussions that evaluate lessons learned from comparative studies" indicates that reflective synthesis is often less emphasized, possibly because instructional emphasis remains more strongly on identifying similarities and differences compared to interpreting their meaning. As a result, opportunities for deeper abstract thinking and civic insight may be postponed. These findings echo Tan and Cruz (2023) and Del Mundo (2021) who found that comparison analysis has worthwhile impact when it goes hand in hand with reflective questions. Hence, further strengthening evaluative discussion would bring comparison activities from being descriptive activities to higher levels of historical and social understanding.

IV. CONCLUSION

Results indicate that Grade 9 learners come from heterogeneous backgrounds in terms of age, sex, school, and income strata, which implies that their experiences with HOTS emerged under varying learning conditions and required instructional practices responsive to these differences. The generally high level of HOTS strategy implementation indicates that teachers consistently integrated higher-order learning activities in Araling Panlipunan 9, although some strategies have been employed more frequently than others, reflecting varying teacher preparation, confidence, and resource access. Learners reported significant cognitive, social, and reflective benefits from these strategies, implying that sustained exposure to HOTS-based instruction fostered deeper engagement and more thoughtful classroom participation. Their satisfactory academic performance further suggests that HOTS-oriented approaches support mastery of essential competencies. The significant relations among HOTS implementation, perceived effects, and academic performance confirm that greater exposure to higher-order strategies is coupled with enhanced skill development and improved achievement. Collectively, the findings emphasize the need to establish a structured School Learning Action Cell in order to enhance teachers' capacity for consistent and varied HOTS integration-a concern that can be further addressed through targeted professional development opportunities.

REFERENCES

[1.] Aashamar, P. N. (2024). Teaching higher order thinking in social studies: The role of classroom discourse and task design. *Journal of Social Science Education*. Advance online publication.

[2.] Apuyao, B. L. (2018). *The level of critical thinking skills honed among the Grade Six pupils of Agusan del Sur during Araling Panlipunan instructional activities and discussions* (Unpublished master's thesis). Agusan del Sur College. Philippine EJournals

[3.] Arifin, Z., Sukarmin, Saputro, S., Kamari, A., (2025). The effect of inquiry-based learning on students' critical thinking skills in science education: A systematic review and meta-analysis. *EURASIA Journal of Mathematics, Science and Technology Education, 21*(3). https://doi.org/10.29333/ejmste/15988

[4.] Artika, W. (2023). Improving critical thinking skills through higher order thinking skills (HOTS) questions in junior high school science. *International Journal of Instruction, 16*(4), 281–298. E-IJI

[5.] Bulut, A. (2025). Bibliometric analysis of studies on higher order thinking skills. *European Journal of Educational Research, 14*(x), 1–20. ERIC

[6.] Cabahug, N. L., & De Vera, P. E. (2023). Debate pedagogy in secondary social studies: Opportunities and challenges in public schools. *Philippine Journal of Pedagogical Studies, 8*(2), 134–150.

[7.] Cabral, R. D. (2023). Cultivating evidence-based reasoning through critical-thinking instruction in Philippine secondary schools. *Asia-Pacific Journal of Educational Research, 6*(2), 155–172.

[8.] Cheng, M. L. (2022). Localized case-based instruction in social studies: Enhancing student engagement and contextual understanding. *Journal of Educational Practice and Research, 7*(3), 202–218.

[9.] Chua, E. M. (2021). Teacher facilitation and feedback in project-based learning: Enhancing critical and reflective thinking. *Educational Inquiry Review, 10*(3), 143–158.

[10.] Cruz, R. T., & Villamor, C. A. (2022). Challenges in implementing project-based learning in Philippine secondary schools. *International Journal of Educational Development Studies, 5*(2), 77–92.

[11.] Dames, F. O. (2018). *Challenges and hurdles against the improvement of the reasoning skills in Social Studies of the Grade Five pupils: Basis for intervention materials* (Unpublished master's thesis). Ilagan City Campus. Philippine EJournals

[12.] Del Carmen, A. R. (2023). Interdisciplinary creativity in Philippine secondary schools: Challenges and prospects. *Asia-Pacific Journal of Educational Practice, 7*(2), 121–138.

[13.] Del Mundo, K. R. (2021). Comparative methods in history instruction: Deepening critical understanding through reflective analysis. *Journal of Social Science Education, 15*(2), 102–118.

[14.] Delos Santos, F. R., & Ramos, C. P. (2023). Higher-order thinking instruction and student achievement in secondary education. *Asia-Pacific Journal of Educational Practice, 8*(1), 144–160.

[15.] Fernandez, R. M. (2025). Development on higher order thinking skills of the Grade Six learners in Araling Panlipunan. *Philippine-based education journal*, 10(2), 45–62.

[16.] Ferrer, M. S., & Yu, C. L. (2021). Developing analytical literacy and discernment among high school learners in the digital age. *Journal of Learning and Instruction, 12*(3), 87–102.
[17.] Flores, M. E. (2021). Sustaining student engagement in inquiry-based learning environments. *Journal of Pedagogical Innovation, 5*(1), 66–79.
[18.] Garcia, P. A., & Torres, S. M. (2021). Reflection and synthesis in case-based learning: Challenges in Philippine classrooms. *International Journal of Learning and Instruction, 12*(2), 88–102.
[19.] Garzon, F. R., & Bautista, A. P. (2020). The role of reflective writing in enhancing students' metacognitive awareness. *Journal of Educational Practice and Research, 8*(2), 56–72.
[20.] Geraldo, I. J. (2021). *Status and progress of the higher order thinking skills of the Grade Six learners applied in Araling Panlipunan instruction and learning process* (Unpublished master's thesis). Agusan del Sur College. Philippine EJournals
[21.] Gonzaga, L. P. (2022). Dialogic pedagogy and respectful discourse in social studies classrooms. *Philippine Journal of Pedagogical Studies, 8*(1), 65–81.
[22.] Gradini, E., Firmansyah, B., Noviani, J., & Ulya, K. (2025). Fostering higher-order thinking skills in mathematics education: Strategies, challenges, and classroom practices. *Prisma Sains: Jurnal Pengkajian Ilmu dan Pembelajaran Matematika dan IPA, 13*(2), 135–163.
[23.] Han, Y., & Kim, J. (2022). Enhancing critical thinking through reflective phases in problem-based learning. *Educational Research and Innovation, 14*(2), 89–103.Hanif and Javed (2021)
[24.] Hernandez, P. L., & Chua, R. M. (2021). Collaborative learning and empathy development among junior high school students. *Philippine Social Science Journal, 4*(3), 88–102.
[25.] Kim, S. J., & Park, Y. S. (2022). Metacognitive reflection and self-regulated learning in secondary education. *International Journal of Educational Development, 9*(4), 244–258.
[26.] Lim, A. Y. (2018). *Effects of engagement in classroom-based debates to the reasoning skills in Araling Panlipunan of the Fifth Grade learners* (Unpublished master's thesis). Bago City College. Philippine EJournals
[27.] Lim, C. H., & Huang, Y. S. (2021). Collaborative concept mapping as a strategy for improving analytical thinking. *Asia-Pacific Education Review, 22*(4), 589–603.
[28.] Liu, M. Y., & Chang, J. T. (2022). Correlating higher-order thinking skills instruction with learners' academic outcomes in social studies. *International Journal of Learning and Instruction, 12*(3), 88–104.
[29.] Liu, J., Liu, Z., Wang, C., Xu, Y., Chen, J., & Cheng, Y. (2024). K–12 students' higher-order thinking skills: Conceptualization, components, and evaluation indicators. *Thinking Skills and Creativity, 52*, 101551.
[30.] Lopez, M. E., & Ramos, J. C. (2021). Journaling as a reflective learning strategy in social studies: Insights from Philippine classrooms. *Asian Journal of Pedagogical Research, 12*(1), 102–118.
[31.] Lopez, R. J., & Santiago, M. D. (2022). Barriers to inquiry-based learning in resource-limited public schools. *Asia Pacific Journal of Educational Research, 5*(2), 112–124.
[32.] Lopez, K. F., & Tan, D. G. (2021). Integrating creativity and innovation across disciplines in the Philippine K to 12 curriculum. *Journal of Creative Teaching, 6*(1), 45–59.

[33.] Lopez, J. H. (2019). *Assessment of the analytical thinking skills in Araling Panlipunan of the selected Grade Six pupils in the Division of Catanduanes* (Unpublished master's thesis). Catanduanes State University. Philippine EJournals
[34.] Loyens, S. M. M., Magda, J., & Rikers, R. M. J.-P. (2023). *Situating higher-order, critical, and critical-analytic thinking in problem- and project-based learning environments: A systematic review. Educational Psychology Review, 35*, 1–44.
[35.] Molina, G. S. (2023). Inquiry and critical evaluation: Strengthening students' analytical thinking through data-supported instruction. *Philippine Social Studies Review, 15*(1), 45–59.
[36.] Morales, A. J., & Chan, E. R. (2021). Building argumentation and empathy through structured classroom dialogue. *Asia Pacific Social Science Review, 21*(2), 114–129.
[37.] Navarro, J. R., & Santiago, L. D. (2022). Performance-based learning and academic achievement in Philippine social studies education. *Asia-Pacific Journal of Educational Research, 6*(3), 134–149.
[38.] Nguyen, T. Q., & Lo, M. J. (2022). Dialogic questioning and critical inquiry in secondary classrooms: Effects on student reasoning. *Asia-Pacific Education Review, 23*(3), 410–425.
[39.] Özpir, H. C., Balcı Çömez, C., & Benzer, E. (2025). Scientific stories in the assessment of higher order thinking skills. *Cogent Education*, *12*(1). https://doi.org/10.1080/2331186X.2025.2460226
[40.] Ramirez, L. M. (2021). Socratic questioning as a tool for higher-order thinking development in social studies. *Philippine Journal of Educational Research, 6*(1), 88–101.
[41.] Reyes, E. L., & Mendoza, J. P. (2022). Formative feedback as a driver of sustained learner engagement in social studies. *Educational Review and Innovation, 13*(2), 105–121.
[42.] Reyes, A. L., & Villamor, D. J. (2021). Impact of higher-order thinking skills strategies on performance and motivation among junior high students. *Philippine Journal of Educational Research, 6*(2), 113–128.
[43.] Santos, J. T. (2021). Reflective practice and learner autonomy: A metacognitive approach to secondary education. *Philippine Journal of Educational Research, 6*(2), 91–108.
[44.] Santos, J. L., & del Rosario, M. T. (2023). The use of graphic organizers in Philippine secondary schools: Practices and challenges. *Journal of Learning and Teaching Studies, 9*(1), 98–113.
[45.] Sharma, G. V. S. S., Raja Murugadoss, J., & Rambabu, V. (2020). Fostering higher order thinking skills in engineering drawing. *Journal of Engineering Education Transformations, 34*(1), 28–40.
[46.] Soriano, D. P. (2022). Role-playing and empathy development in social studies classrooms: The need for reflective integration. *Philippine Journal of Education and Learning, 7*(2), 101–116.
[47.] Swaran Singh, C. K., Hai Tao, Eng Tek Ong, Tze Kiong Tee, Mazura Mastura Muhamad, Tarsame Singh Masa Singh, Fadzllah Ahmad Zaini, Revathi Gopal, & Mahendran Maniam. (2023). Teachers' Self-Assessment of and Perceptions on Higher-Order Thinking Skills Practices for Teaching Writing. *Pegem Journal of Education and Instruction*, *13*(3), 337–349. https://doi.org/10.47750/pegegog.13.03.34
[48.] Taduran, M. C. (2022). Enhancing cooperative learning through structured peer interaction strategies. *Asia-Pacific Journal of Pedagogical Studies, 8*(1), 74–89.

[49.] Takko, M. (2020). Enhancing higher-order thinking skills among home economics students through authentic learning tasks. *International Journal of Learning, Teaching and Educational Research, 19*(8), 150–167.
[50.] Talento, A. H. (2019). *Factors affecting the development and improvement of the higher order thinking and learning skills of the intermediate grade learners: Basis for intervention materials* (Unpublished master's thesis). Guimaras State College. Philippine EJournals
[51.] Tan, R. P., & Cruz, J. S. (2023). Developing analytical reasoning through comparative study in Philippine history classes. *International Journal of Learning and Instruction, 13*(1), 67–81.
[52.] Tiongco, E. F. (2022). Effects of structured debate on critical thinking and argumentation skills among high school students. *Asia Pacific Social Science Review, 22*(1), 91–108.
[53.] Ulu-Kalin, Ö. (2024). Classification of higher-order thinking skills of teachers: Critical, creative, and empathetic thinking. *Behavioral Sciences, 14*(8), 626. MDPI
[54.] Valdez, P. M., & Cruz, M. A. (2021). Higher-order thinking strategies and their impact on students' performance in secondary social studies. *Philippine Journal of Pedagogical Studies, 7*(1), 78–93.
[55.] Villanueva, C. F., & Ramos, D. J. (2021). Implementing problem-based learning in social studies: Challenges and strategies in Philippine classrooms. *Journal of Humanities and Education, 6*(1), 77–91.
[56.] Zona, M. A. (2025). Improving students' higher-order thinking skills: A comparison between flipped learning and traditional teaching approach. *European Journal of Educational Research, 14*(x), 1–12. EU-Jer