

Original Article

Historical Thinking, AI and Digital Historical Literacy, and Civic Outcomes: Towards a Future-Ready Historical and Civic Literacy Framework for Readings in Philippine History

John Clifford M. Alvero 

Author Information:

Graduate School | Research, Evaluation,
and Publication Office | College of Arts and
Sciences, San Pablo Colleges, San Pablo City,
Laguna, Philippines

Corresponding Author:

John Clifford M. Alvero
jc.alvero@sanpablocolleges.edu.ph

Article History:

Date received: August 16, 2026
Date revised: September 24, 2026
Date accepted: October 1, 2026

Recommended citation:

Alvero, J.C. (2026). Historical thinking, AI
and digital historical literacy, and civic
outcomes: Towards a future-ready historical
and civic literacy framework for Readings in
Philippine History. *Journal of Interdisciplinary
Perspectives*, 4(10), 503-521.
<https://doi.org/10.69569/jip.2026.433>

Abstract. Generative artificial intelligence (AI) and digitally mediated information are transforming how students encounter, interpret, and evaluate historical narratives. This quantitative, cross-sectional, descriptive-correlational study examined the self-reported historical thinking, AI and digital historical literacy, civic agency, and democratic citizenship of 315 students enrolled in Readings in Philippine History at a private higher education institution in Laguna, Philippines. Data were collected using a 114-item researcher-developed questionnaire that underwent expert validation and pilot testing. The four major scales demonstrated satisfactory internal consistency, with Cronbach's alpha coefficients ranging from .88 to .90. However, because factor-analytic and discriminant-validity evidence was unavailable, the findings were interpreted as associations among theoretically specified self-report scales. Results showed that students manifested all four competencies to a great extent. Historical thinking was strongly associated with civic agency ($r = .778$) and democratic citizenship ($r = .700$). AI and digital historical literacy was also strongly associated with historical thinking ($r = .727$), civic agency ($r = .741$), and democratic citizenship ($r = .695$), with all relationships significant at $p < .001$. These findings indicate that students' capacities to evaluate historical evidence and critically engage with AI-mediated information are closely connected with their perceived civic and democratic competencies. The study contributes preliminary, noncausal evidence supporting a more integrated approach to history education that combines disciplinary inquiry, digital verification, ethical AI use, and civic formation. It proposes a Future-Ready Historical and Civic Literacy Framework to guide curriculum enhancement in Readings in Philippine History, subject to independent measurement validation, pilot implementation, and outcome evaluation.

Keywords: *Civic agency; Democratic citizenship; Digital historical literacy; Generative artificial intelligence; Historical thinking.*

History education has shifted from the transmission of substantive knowledge toward the development of disciplinary competencies through which students interrogate evidence, evaluate competing accounts, and construct reasoned interpretations of the past. Central to this orientation is historical thinking, which encompasses sourcing, contextualization, corroboration, argumentation, and recognition of multiple perspectives.

These competencies are particularly relevant to Readings in Philippine History (RPH), a general education course intended to develop intellectual and civic competencies through the critical examination of primary sources and contested interpretations of the Philippine past (Commission on Higher Education [CHED], 2013). RPH may therefore function not merely as a content-based history course but as a curricular space in which students develop the epistemic judgment needed to relate historical evidence to contemporary social and political issues. Philippine evidence indicates that history education can strengthen cultural awareness, heritage appreciation, historical understanding, and academic engagement (Alvero, 2023, 2024). These findings position RPH as a foundation for developing cultural responsibility, transferable skills, and the critical evaluation of historical claims in contemporary contexts.

This disciplinary shift coincides with the proliferation of digital information environments and generative AI, which increasingly mediate students' encounters with historical narratives. Although these technologies expand access to information, they may also generate inaccurate, fabricated, decontextualized, or biased content, underscoring the need for critical source evaluation and ethical digital engagement (Chen et al., 2025; Chu-Ke & Dong, 2024; Kasneci et al., 2023; UNESCO, 2023, 2025). Philippine evidence further indicates that responsible AI integration requires technological, pedagogical, and content knowledge, supported by institutional guidance, source verification, ethical disclosure, and human oversight (Alvero, 2025b, 2026b). Moreover, the limited use of AI for personalized feedback suggests that perceived usefulness does not necessarily translate into responsible and pedagogically meaningful practice (Alvero & Saldua, 2026).

Although historical thinking, media literacy, digital historical literacy, and AI literacy share elements of critical evaluation, they are conceptually distinct. Historical thinking refers to the disciplinary processes used to evaluate evidence and construct interpretations of the past. Media literacy is broader and concerns the critical interpretation, production, and circulation of messages across different media forms. Digital historical literacy applies historical inquiry to digitally produced, reproduced, or circulated accounts of the past, including the evaluation of online sources, digital archives, audiovisual narratives, and platform-mediated historical claims. AI literacy focuses more specifically on understanding, evaluating, and ethically using AI systems and their outputs, including awareness of algorithmic limitations, bias, fabrication, and the need for human verification. In this study, AI and digital historical literacy were treated as an integrated construct because students often encounter AI-generated historical information within the same digital environments in which other historical narratives circulate. Its indicators nevertheless addressed identifiable dimensions of AI awareness, information verification, ethical use, and critical engagement with digital historical narratives. Historical thinking remained a separate construct because it represented the disciplinary reasoning applied to historical evidence, regardless of whether that evidence was encountered in print or digital form.

These distinctions are especially important in the Philippine context, where digitally mediated historical narratives intersect with political polarization, contested collective memory, and the widespread circulation of misinformation. Evidence suggests that Filipino students' capacity to evaluate digital information remains uneven. Fajardo (2023), for example, found that many students demonstrated beginning levels of competency in checking authorship, factual accuracy, and bias in digital content. Research on Philippine history education has also identified a possible disjunction between students' self-perceived historical thinking competencies and their demonstrated knowledge of locally significant events (Pandan et al., 2025). These findings point to an important educational problem: access to historical and digital information does not necessarily produce informed historical judgment. Without systematic preparation in verification, corroboration, contextualization, and source criticism, students may become more exposed – and not necessarily less vulnerable – to inaccurate or strategically distorted representations of the past.

The proposed relationships among the study variables follow an epistemic-to-civic rationale. Historical thinking and AI and digital historical literacy represent competencies for judging the credibility, context, and meaning of information. Civic agency refers to students' perceived capacity and willingness to respond to community and public concerns, whereas democratic citizenship concerns dispositions associated with participation, dialogue, respect for rights and diversity, and responsibility within democratic life. Because the study used cross-sectional self-report data and the measures lacked factor-analytic evidence of empirical distinctiveness, the analysis was restricted to descriptive summaries, sex-based comparisons, and bivariate associations. No directional, causal, or dimension-level predictive pathway was tested.

Recognition of multiple historical perspectives may be theoretically relevant to democratic citizenship because it encourages students to acknowledge diverse experiences, engage in reasoned disagreement, and recognize the historical roots of inequality and exclusion. However, movement from historical or digital competence to civic participation should not be presumed. Evidence indicates that civic outcomes depend partly on instructional practices that explicitly connect historical inquiry with public reasoning and democratic engagement (Wilke et al., 2022). Related Philippine evidence showed variations across the cognitive, socio-emotional, and behavioral domains of global citizenship, with behavioral engagement comparatively less developed than awareness and ethical orientations (Alvero, 2025a). Accordingly, the present study examines covariation among self-reported constructs and does not treat one construct as producing or statistically predicting another.

Despite growing scholarship on these constructs, their interrelationships remain insufficiently examined among Philippine college students enrolled in RPH. Previous studies have commonly investigated historical thinking, digital or media literacy, susceptibility to misinformation, civic agency, and citizenship as separate domains. Limited empirical attention has been given to how these theoretically related self-reported competencies covary within a Philippine general-education context. Examining their bivariate relationships can provide preliminary evidence for curriculum inquiry, while avoiding stronger claims that require validated latent measures, independent outcomes, and longitudinal or experimental data.

Accordingly, the study sought to (a) describe students' self-reported historical thinking, AI and digital historical literacy, civic agency, and democratic citizenship; (b) examine differences in the four major scale scores according to sex; and (c) determine the bivariate relationships among the four major scales. Academic program remained part of the sampling description but was not used for inferential comparison because several program strata had extremely small and unequal sample sizes. Dimension-level multiple regression was excluded because complete diagnostic evidence and exact software-generated confidence intervals were unavailable. The retained analyses describe patterns and associations only and do not establish causal, developmental, or instructional effects.

By integrating disciplinary, technological, and civic constructs within a single investigation, the study extends current discussions of what constitutes meaningful historical literacy in an AI-mediated society. Its findings may help RPH educators identify competencies requiring greater instructional emphasis, particularly source evaluation, corroboration, multiperspectivity, AI-information verification, and ethical digital engagement. The results also inform the proposed Future-Ready Historical and Civic Literacy Framework for RPH; however, the framework is presented as a curriculum-oriented proposition requiring further implementation and validation rather than as an established model.

The study is aligned with Sustainable Development Goal (SDG) 4, particularly Target 4.7, which calls for education that promotes global citizenship, human rights, cultural diversity, and sustainable development (United Nations, n.d.-a). It also supports SDG 16 by strengthening competencies associated with informed participation, inclusive dialogue, respect for rights, and accountable democratic institutions (United Nations, n.d.-b). From this perspective, the educational value of history lies not only in preserving knowledge of the past but also in preparing students to evaluate contemporary claims, resist historical distortion, engage constructively with different perspectives, and participate responsibly in democratic life.

Methodology

Research Design

The study employed a quantitative, cross-sectional, descriptive-correlational research design. The descriptive component summarized students' self-reported historical thinking, AI and digital historical literacy, civic agency, and democratic citizenship at one point in time. The comparative component examined the four major scale scores according to sex, and the correlational component examined bivariate associations among the four scales. Academic-program ANOVA was not conducted in the final analysis because subgroup sizes were extremely small and highly unequal, including two singleton groups, making program-level variance estimates and omnibus comparisons unstable. Multiple regression was likewise excluded because complete multicollinearity, residual, and influence diagnostics and exact software-generated confidence intervals were not available for verification. The study was nonexperimental; consequently, the findings indicate descriptive patterns and associations rather than causal, developmental, instructional, or directional effects.

Research Participants

The sampling frame consisted of 872 eligible first-year undergraduate students from 14 academic programs at a private higher education institution in Laguna, Philippines, during the first semester of A.Y. 2026–2027. All eligible participants were currently enrolled in Readings in Philippine History (RPH). Using the SurveyMonkey sample size calculator with a 95% confidence level, 5% margin of error, and 50% response distribution, the minimum required sample was approximately 267 students. To strengthen program representation and allow for possible nonresponse or incomplete questionnaires, 315 students were invited to participate, exceeding the minimum requirement by 48 participants. All invited students completed the questionnaire, producing a 100% response rate, and no responses were excluded. Thus, the final sample comprised 315 students, representing 36.12% of the eligible population and providing an estimated margin of error of approximately 4.42%. Proportionate stratified random sampling was applied, with academic program serving as the stratum. The allocation for each program was computed using $(n_h = (N_h/N)n)$, where (n_h) represented the sample allocated to each program, (N_h) represented the eligible population within the program, (N) represented the total eligible population of 872, and (n) represented the final sample of 315. Table 1 presents the population and sample allocations for all 14 academic programs.

Using the program-specific allocations, participants were selected from official enrollment lists through a computer-generated random-number procedure. Data were collected from August 8 to 15, 2026. Of the participants, 194 (61.59%) were female, and 121 (38.41%) were male. Academic program was used solely as a sampling stratum to preserve representation across the institution. The resulting program counts ranged from 1 to 111; because several cells were too small for stable group estimates, program membership was reported descriptively and excluded from inferential comparisons.

Research Instrument

The study used a researcher-developed questionnaire consisting of two sections. The first section collected participants' profile information according to sex and academic program. The second section contained 114 self-report indicators measuring four constructs: historical thinking competencies (28 items), AI and digital historical literacy (31 items), civic agency (27 items), and democratic citizenship (28 items). The complete questionnaire is not included in the publicly available manuscript but may be obtained from the corresponding author upon reasonable request for legitimate academic or research purposes.

Historical thinking was operationalized through four theory-specified content domains: sourcing, source evaluation, and corroboration of historical evidence; contextualization; historical interpretation and argumentation; and recognition of multiple historical perspectives. Corroboration was incorporated into the sourcing and source-evaluation domain because its indicators required comparison of claims across sources. AI and digital historical literacy comprised five content domains: critical evaluation of AI-generated historical information; verification using credible historical sources; recognition of misinformation, disinformation, bias, and historical distortion; ethical and responsible use of generative AI; and critical engagement with digitally mediated historical narratives. Civic agency and democratic citizenship were similarly organized into five content domains each. These domains supported content coverage and descriptive reporting; without factor analysis and domain-specific reliability estimates, they were not treated as independently validated subscales in inferential models.

All indicators were rated using a four-point Likert-type scale: 4, demonstrated to a great extent; 3, demonstrated to a moderate extent; 2, demonstrated to a low extent; and 1, not demonstrated at all. Item responses were averaged to calculate the mean scores for each dimension and major construct, with higher mean scores indicating higher self-reported levels of the measured competencies. The resulting means were interpreted as follows: 3.26–4.00, demonstrated to a great extent; 2.51–3.25, demonstrated to a moderate extent; 1.76–2.50, demonstrated to a low extent; and 1.00–1.75, not demonstrated at all. The instrument was developed with reference to the intended learning outcomes of RPH, relevant CHED policies, and established literature on historical thinking, AI literacy, digital historical literacy, civic agency, and democratic citizenship.

The initial questionnaire contained 190 indicators and was reviewed by five experts with relevant expertise in history and social science education, educational research, measurement, and instrument development. The experts evaluated the indicators in terms of clarity, relevance, comprehensiveness, appropriateness, and alignment with their intended constructs. Their qualitative comments and recommendations were consolidated

and used to revise or remove ambiguous, repetitive, unclear, and weakly aligned indicators, reducing the instrument from 190 to 114 indicators. Formal item-level and scale-level content-validity indices were not calculated during the original validation process; consequently, numerical I-CVI and S-CVI values are not reported or retrospectively estimated. Thus, the expert-review process provides evidence of face and content review but should not be interpreted as a quantified demonstration of content validity. The absence of formal content-validity indices is acknowledged as a methodological limitation of the instrument.

The revised questionnaire was pilot-tested with 40 college students who met the eligibility criteria but were not included in the final sample. The pilot test assessed item clarity, questionnaire functionality, completion burden, and preliminary internal consistency. Completion required approximately 30-45 minutes. The questionnaire was divided into clearly labeled sections, accompanied by standardized instructions, and screened for invariant or repetitive response patterns. Major-scale reliability coefficients were $\alpha = .90$ for historical thinking, $.88$ for AI and digital historical literacy, $.90$ for civic agency, and $.89$ for democratic citizenship. The overall $\alpha = .89$ is reported only as supplementary information because the questionnaire does not represent a single unidimensional scale. Domain-specific reliability coefficients were not available; accordingly, the domains are described as content groupings rather than validated subscales, and no dimension-level inferential analysis is retained.

The reported alpha coefficients provide evidence of internal consistency at the four major-scale level but do not establish dimensionality, convergent validity, or discriminant validity. Exploratory or confirmatory factor analysis, omega coefficients, and formal discriminant-validity tests were not conducted. Conceptual boundaries were therefore maintained through theory-based operational definitions: historical thinking concerns disciplinary reasoning about historical evidence; AI and digital historical literacy concerns evaluation and ethical use of digitally mediated or AI-generated historical information; civic agency concerns perceived capacity and willingness for civic action; and democratic citizenship concerns democratic values, dialogue, rights, diversity, and responsible participation. Given the conceptual proximity of these constructs, correlations are interpreted as associations among theoretically specified, expert-reviewed self-report scales rather than evidence of empirically distinct latent variables. Independent factor-analytic validation and domain-level reliability assessment are required before dimension scores are used in predictive modeling.

Data Gathering Procedure

Before data collection, the researcher submitted a formal request to the appropriate institutional authorities and secured permission to conduct the study. After approval, coordination was undertaken with the concerned college administrators, program heads, and faculty members to identify the eligible participants and facilitate the administration of the questionnaire. The respondents were selected from the identified academic-program strata based on the established sampling procedure. Before answering the questionnaire, participants were informed about the study's purpose, the procedures involved, the expected duration of participation, and their rights as research participants. The instrument was administered through an accessible online platform within a designated data-collection period. Responses were reviewed for completeness, encoded, cleaned, and prepared for statistical analysis. The final dataset included only valid, complete responses.

Data Analysis

Data were analyzed using IBM SPSS Statistics, version 29.0. Frequency and percentage described participants according to sex and academic program. Means and standard deviations summarized the four major scales and their theory-specified content domains. All Google Forms items were required, so the 315 submitted questionnaires contained no missing responses; screening produced no exclusions, and no imputation was performed.

Welch's independent-samples *t* test examined differences in the four major scales according to sex because it does not assume equal variances. Mean differences, 95% confidence intervals, and Hedges' *g* were reported, and Holm-Bonferroni adjustment controlled the familywise error rate across the four comparisons. Academic-program ANOVA was removed because the 14 groups were extremely unequal and included two singleton groups; neither conventional ANOVA nor a variance-robust alternative can yield defensible program-level inference under that structure.

Pearson's product-moment correlation examined bivariate associations among historical thinking, AI and digital historical literacy, civic agency, and democratic citizenship. Statistical significance was evaluated at $\alpha = .05$.

Multiple regression results were removed because the available manuscript materials did not include complete multicollinearity, residual, and influence diagnostics or exact software-generated confidence intervals. This restriction prevents interpretation of unstable dimension-level coefficients and limits the paper to analyses that can be reported transparently from the verified output. Correlations are interpreted as nondirectional associations and not as causal or instructional effects.

The complete questionnaire is not included in the publicly available manuscript but may be obtained from the corresponding author upon reasonable request for legitimate academic or research purposes. The instrument blueprint, codebook, scoring procedures, de-identified dataset, and analysis syntax may likewise be made available upon reasonable request, subject to the conditions of the ethics approval, participant confidentiality, institutional authorization, and the requirements of the Data Privacy Act of 2012. No directly identifying participant information will be shared.

Ethical Considerations

Before data collection, the research protocol underwent ethical review and received approval from the Institutional Ethics Review Committee of the participating institution. The committee reviewed the study's objectives, methodology, research instrument, recruitment procedures, informed-consent process, data-management plan, and measures for protecting participants. Following ethics approval, administrative permission to recruit eligible students and administer the questionnaire was obtained from the General Education Program Coordinator. Both ethics approval and program-level authorization were secured before participant recruitment and data collection.

The study observed established ethical principles for research involving human participants. Participation was voluntary, and electronic informed consent was obtained before respondents accessed the questionnaire. Participants were informed that they could decline participation or discontinue answering at any time before submitting the form without penalty. Participation or nonparticipation had no effect on their grades, academic standing, relationship with their instructors, or access to institutional services. Because the questionnaire was anonymous and no identification or withdrawal code was collected, an individual response could no longer be identified and withdrawn after submission; this limitation was explained in the informed-consent statement.

The questionnaire was administered through Google Forms and was configured not to collect names, email addresses, student numbers, or other direct identifiers. No personally identifying information was included in the analytical dataset, and individual responses were treated as confidential. The collected information was used exclusively for academic and research purposes, stored in a password-protected electronic file, and made accessible only to the researcher. Findings were reported in aggregate form to prevent the identification of individual participants. The anonymized dataset will be retained for five years following publication and subsequently permanently deleted from the researcher's storage device and backup locations. Data collection, storage, processing, retention, and disposal were undertaken in accordance with Republic Act No. 10173, otherwise known as the Data Privacy Act of 2012, and the ethical principles of respect for persons, beneficence, nonmaleficence, justice, confidentiality, and research integrity.

Results and Discussion

Table 1 presents the profile of the 315 respondents drawn from 14 academic programs. Overall, the participation of students from health sciences, social sciences, business, information technology, communication, and teacher education reflects the multidisciplinary nature of Readings in Philippine History as a General Education course. This diversity provides the study with perspectives from students whose disciplinary orientations and academic experiences may shape how they engage with history, artificial intelligence, digital information, and citizenship. Asio et al. (2022) explained that the Philippine General Education Curriculum is intended for students across academic specializations and should remain responsive to globalization, technological advancement, and changing societal needs. Thus, the multidisciplinary composition supports the relevance of examining historical and civic literacy across programs, although the unequal number of respondents in each program must be considered when interpreting the findings.

Table 1. Profile of the Respondents

	f	%
Sex		
Female	194	61.59
Male	121	38.41
Academic Program		
Bachelor of Science in Nursing	111	35.24
Bachelor of Science in Psychology	46	14.60
Bachelor of Science in Accountancy	34	10.79
Bachelor of Science in Information Technology	31	9.84
Bachelor of Science in Radiologic Technology	25	7.94
Bachelor of Arts in Political Science	15	4.76
Bachelor of Arts in Communication	14	4.44
Bachelor of Secondary Education	14	4.44
Bachelor of Science in Computer Science	10	3.17
Bachelor of Science in Physical Therapy	5	1.59
Bachelor of in Elementary Education	5	1.59
Bachelor of Science in Business Administration major in Financial Technology	3	0.95
Bachelor of Early Childhood Education	1	0.32
Associate in Radiologic Technology	1	0.32
Total	315	100.00

In terms of sex, female students constituted the highest proportion, with 194 respondents or 61.59%, while male students comprised 121 or 38.41%. This distribution may be partly explained by the high participation of students from Nursing and other health-related programs, which traditionally have larger female populations. This pattern is consistent with Maurud et al. (2022), whose study of first-year nursing students included 87% females, and Madayag et al. (2024), whose Philippine nursing sample was likewise predominantly female. Andina-Díaz et al. (2023) further observed that nursing remains closely associated with women because caregiving continues to be socially perceived as a feminine role. Regarding academic program, Bachelor of Science in Nursing recorded the highest representation, with 111 respondents or 35.24%, while Bachelor of Early Childhood Education and Associate in Radiologic Technology had the lowest representation, with one respondent or 0.32% each. The predominance of Nursing respondents may therefore have contributed to the female-skewed distribution and may have given health-science perspectives greater influence on the aggregate results.

The profile implies that the findings should be interpreted primarily within the context of the participating private higher education institution and should not be generalized automatically to the broader population of Philippine college students. While the inclusion of 14 programs enhances disciplinary breadth, the unequal group sizes mean that programs with larger representation, particularly Nursing, contributed more substantially to the overall findings than programs represented by only one or a few students. This concern is important because students' academic disciplines may expose them to distinct professional values, learning experiences, and forms of social responsibility; for instance, Madayag et al. (2024) highlighted how nursing education develops communication, empathy, ethical practice, and culturally responsive engagement. Future implementations should therefore use proportionate stratified sampling or establish adequate minimum subgroup sizes to secure more balanced representation. The proposed framework should also incorporate multidisciplinary activities that connect Philippine history and civic responsibility with health, technology, business, governance, communication, and education.

Table 2 indicates that the students demonstrated historical thinking competencies to a great extent, with a composite mean of 3.39 (SD = 0.37). This finding suggests that the respondents generally perceived themselves as capable of examining historical evidence, situating events within their contexts, developing interpretations, and recognizing that historical accounts may differ according to available evidence and perspective. This result is consistent with Gentallan and Pandan (2024), who found that Filipino education students demonstrated proficient historical thinking, particularly in historical inquiry and empathy. Wilke et al. (2023) similarly explained that historical thinking involves the coordinated application of historical knowledge, evidence use, contextualization, causal reasoning, and narrative construction. Moreover, Burgos-Videla et al. (2025) maintained that the historical method promotes critical thinking by requiring learners to question information, analyze sources, interpret evidence, and construct reasoned explanations. Therefore, the overall finding indicates that the students have developed a positive foundation for engaging with Philippine history as an evidence-based and interpretive

discipline rather than as a collection of facts to be memorized.

Table 2. *Summary Table on the Extent to Which Students Demonstrate Historical Thinking Competencies*

Historical Thinking Competency	M	SD	VI
1. Sourcing and source evaluation	3.50	0.43	DGE
2. Contextualization	3.34	0.44	DGE
3. Historical interpretation and argumentation	3.35	0.43	DGE
4. Recognition of multiple historical perspectives	3.37	0.45	DGE
Composite Mean	3.39	0.37	Demonstrated to a Great Extent

Legend: 4.00 – 3.26 – Demonstrated to a Great Extent (DGE); 3.25 – 2.51 – Demonstrated to a Moderate Extent (DME); 2.50 – 1.76 – Demonstrated to a Low Extent (DLE); 1.75 – 1.00 – Not at all demonstrated (NAD)

Sourcing and source evaluation obtained the highest mean of 3.50 (SD = 0.43), interpreted as demonstrated to a great extent. Assuming that the duplicated fifth entry refers to corroboration of historical evidence, corroboration similarly obtained the highest mean of 3.50 (SD = 0.43). These findings indicate that students are relatively confident in identifying the authorship, origin, purpose, credibility, and evidentiary basis of historical sources and in comparing information across different accounts. Claravall and Irej (2022) demonstrated that document-based instruction can develop students' ability to interrogate sources, evaluate their trustworthiness, and corroborate information from multiple documents. Steiss et al. (2024) likewise identified sourcing, contextualization, corroboration, and counterargument as essential features of students' source-based historical writing. Ofianto et al. (2022) further emphasized that historical thinking requires learners to analyze the causal relationships among events and construct interpretations supported by evidence. In contrast, contextualization obtained the lowest mean of 3.34 (SD = 0.44), although it was still demonstrated to a great extent. The relatively lower result suggests that students may find it more challenging to situate historical events and sources within their broader political, economic, cultural, social, and temporal conditions. This observation supports Wilke et al. (2023), who described historical thinking as a complex process that requires explicit modeling, sufficient substantive knowledge, guided practice, and carefully designed instructional support.

The results imply that instruction in Readings in Philippine History should sustain students' strengths in sourcing, source evaluation, and corroboration while providing more focused opportunities to develop contextualization. Teachers may use annotated timelines, historical context maps, primary-source dossiers, document-based questions, sourcing and corroboration matrices, and structured comparisons of conflicting historical accounts. Andal and Hermosa (2023) emphasized the value of contextualized learning activities in making historical content more relevant and responsive to learners' backgrounds, while Claravall and Irej (2022) showed that sustained engagement with multiple documents can help students develop disciplinary reading and reasoning. Carefully constructed writing prompts may also require students to connect a source with its historical setting, compare evidence, acknowledge alternative interpretations, and defend conclusions, as recommended by Steiss et al. (2024). These strategies should be integrated into the proposed Future-Ready Historical and Civic Literacy Framework to ensure that students' self-reported competencies are translated into observable source analysis, contextual reasoning, evidence-based argumentation, and critical engagement with historical and digitally mediated information.

Table 3 shows that students demonstrated AI and digital historical literacy to a great extent, as indicated by the overall mean of 3.38 (SD = 0.39). This finding suggests that the respondents generally perceived themselves as capable of evaluating AI-generated historical information, verifying digital claims, recognizing misinformation and bias, using generative AI responsibly, and critically examining digitally mediated historical narratives. Chen et al. (2025) explained that generative AI literacy extends beyond the ability to operate AI tools and includes critical evaluation, informed interaction, content verification, and awareness of ethical consequences. Kasneci et al. (2023) similarly emphasized that large language models can support learning and information access but may also produce plausible yet inaccurate or fabricated information. Tlili et al. (2023) further cautioned that AI-generated responses may contain bias, misinformation, privacy concerns, and insufficient transparency. The overall result therefore indicates that students reported a positive foundation for navigating AI-supported historical learning, but the great-extent interpretation should not be taken to mean that these competencies have reached complete mastery.

Table 3. *Summary Table on the Extent to Which Students Demonstrate AI and Digital Historical Literacy*

AI and Digital Historical Literacy Dimension	M	SD	VI
1. Critical evaluation of AI-generated historical information	3.40	0.48	DGE
2. Verification using credible historical sources	3.43	0.47	DGE
3. Recognition of misinformation, disinformation, bias, and historical distortion	3.37	0.45	DGE
4. Ethical and responsible use of generative AI	3.28	0.47	DGE
5. Critical engagement with digitally mediated historical narratives	3.41	0.44	DGE
Overall	3.38	0.39	Demonstrated to a Great Extent

Legend: 4.00 – 3.26 – Demonstrated to a Great Extent (DGE); 3.25 – 2.51 – Demonstrated to a Moderate Extent (DME); 2.50 – 1.76 – Demonstrated to a Low Extent (DLE); 1.75 – 1.00 – Not at all demonstrated (NAD)

Verification using credible historical sources obtained the highest mean of 3.43 (SD = 0.47), interpreted as demonstrated to a great extent. This result indicates that students were most confident in comparing information generated by AI or encountered online with authoritative primary sources, scholarly publications, official records, and other credible historical references. This competency is essential because generative AI systems generate responses based on statistical patterns rather than an inherent capacity to determine historical truth. Farrokhnia et al. (2024) identified the production of incorrect, biased, and fabricated information as a major educational weakness of ChatGPT, while Chu-Ke and Dong (2024) emphasized that generative AI has increased the complexity and potential scale of misinformation. Critical engagement with digitally mediated historical narratives also obtained a comparatively high mean of 3.41, reinforcing the students' reported ability to question how history is selected, framed, and represented through digital platforms. However, ethical and responsible use of generative AI received the lowest mean of 3.28 (SD = 0.47), although it remained within the great-extent category. This comparatively lower result suggests continuing uncertainty regarding attribution, disclosure, privacy, intellectual ownership, academic integrity, bias, and the acceptable extent of AI assistance. García-López and Trujillo-Liñán (2025) emphasized that the educational use of generative AI must be governed by ethical, legal, and pedagogical boundaries, while Chen et al. (2025) found that students' ability to use AI does not necessarily correspond to equally developed ethical understanding.

The findings imply that Readings in Philippine History should integrate systematic AI and digital historical literacy instruction rather than assume that students will independently develop these competencies through frequent technology use. Students should be required to conduct AI-output audits, verify generated claims against primary and scholarly historical sources, trace citations, identify hallucinated references, compare competing digital narratives, disclose AI assistance, and reflect on the ethical implications of using generated content. Kasneci et al. (2023) recommended building learners' critical AI literacy so that AI outputs are treated as material for examination rather than unquestioned authority, while Tlili et al. (2023) emphasized the importance of human oversight, digital competence, and clear institutional guidance. Farrokhnia et al. (2024) likewise recommended redesigning instruction and assessment to encourage responsible use while protecting academic integrity. Accordingly, the proposed Future-Ready Historical and Civic Literacy Framework should include explicit AI-use protocols, source-verification procedures, disclosure requirements, misinformation-analysis activities, and performance assessments that measure whether students can use AI transparently, critically, and ethically in constructing historical knowledge.

Table 4 shows that students demonstrated civic agency to a great extent, as reflected by the overall mean of 3.45 (SD = 0.38). This finding indicates that the respondents generally possessed civic awareness, engaged critically with contemporary social issues, recognized their social responsibilities, and perceived themselves as capable of contributing to positive social change. Civic agency encompasses not only knowledge of public concerns but also the confidence, commitment, and capacity to participate in addressing them. Chang et al. (2023) found that college students' civic engagement efficacy was associated with their perceived ability to participate in local and global civic activities. Mata (2024) likewise reported that social responsibility, community connectedness, parental civic engagement, and empathy facilitated civic behavior among Filipino college students. In the context of history education, Wilke et al. (2022) emphasized that historical inquiry can support civic development by enabling learners to analyze evidence, recognize competing perspectives, and formulate substantiated judgments about complex societal questions. Thus, the overall result suggests that students reported a strong attitudinal and cognitive foundation for civic engagement.

Table 4. Summary Table on the Extent to Which Students Demonstrate Civic Agency

Civic Agency Dimension	M	SD	VI
1. Civic awareness	3.48	0.43	DGE
2. Critical engagement with contemporary social issues	3.43	0.44	DGE
3. Willingness to participate in civic affairs	3.38	0.44	DGE
4. Sense of social responsibility	3.54	0.43	DGE
5. Perceived capacity to contribute to positive social change	3.45	0.44	DGE
Overall	3.45	0.38	Demonstrated to a Great Extent

Legend: 4.00 – 3.26 – Demonstrated to a Great Extent (DGE); 3.25 – 2.51 – Demonstrated to a Moderate Extent (DME); 2.50 – 1.76 – Demonstrated to a Low Extent (DLE); 1.75 – 1.00 – Not at all demonstrated (NAD)

A sense of social responsibility obtained the highest mean of 3.54 ($SD = 0.43$), interpreted as demonstrated to a great extent. This indicates that students strongly recognized their responsibility to consider others' welfare, respond to community concerns, and contribute to the common good. The finding is supported by Mata (2024), who identified social responsibility as an important driver of civic behavior among Filipino college students. Saavedra et al. (2022) similarly found that critical service-learning strengthened students' social justice and civic-engagement orientations by connecting academic learning with community needs and structural social issues. In contrast, willingness to participate in civic affairs obtained the lowest mean of 3.38 ($SD = 0.44$), although it remained within the great-extent category. This comparatively lower result suggests a possible gap between civic values and actual readiness to participate in community projects, public consultations, advocacy, volunteering, or other civic activities. Chang et al. (2023) distinguished civic-engagement efficacy from civic implementation, showing that students' belief in civic participation does not necessarily translate automatically into sustained civic action. Choi et al. (2026) likewise found that meaningful participation was strengthened when students addressed authentic community needs, assumed specific responsibilities, collaborated with diverse groups, and reflected on their experiences.

The findings imply that Readings in Philippine History should move beyond developing civic awareness and social responsibility toward providing authentic and sustained opportunities for civic participation. Learning activities may include community-based historical research, oral-history projects, public-history exhibitions, heritage documentation, policy briefs, structured deliberations, voter and media literacy activities, and service-learning initiatives addressing contemporary issues with historical roots. Brozmanová Gregorová et al. (2024) found that well-designed service-learning contributed to students' social and civic competencies, responsibility, personal values, and engagement, while Saavedra et al. (2022) demonstrated that critical reflection helps students connect community service with social justice and systemic concerns. Wilke et al. (2022) further cautioned that historical thinking does not automatically produce democratic or civic action; the connection must be cultivated through intentional instructional design. Therefore, the proposed Future-Ready Historical and Civic Literacy Framework should include participatory, reflective, and community-responsive experiences that enable students to translate civic awareness and social responsibility into informed, ethical, and sustained civic action.

Table 5 reveals that the students demonstrated democratic citizenship to a great extent, as shown by the overall mean of 3.53 ($SD = 0.40$). This finding indicates that the respondents generally upheld diversity, democratic principles, reasoned dialogue, human rights, social justice, and responsible participation in democratic life. Democratic citizenship entails more than understanding political institutions; it includes dispositions and practices that enable individuals to live respectfully with others, evaluate public issues, defend human dignity, and participate responsibly in collective decision-making. The International Civic and Citizenship Education Study reported that civic knowledge, respect for diversity, trust, and willingness to participate constitute interconnected foundations of democratic citizenship among young people (Schulz et al., 2023). Pérez-Rodríguez et al. (2022) likewise argued that higher education must develop critical and committed citizens capable of addressing social, political, and economic challenges. In history education, Wilke et al. (2022) emphasized that inquiry into evidence and competing interpretations can contribute to democratic citizenship, although such outcomes require explicit instructional support.

Respect for diversity and multiple perspectives obtained the highest mean of 3.58 ($SD = 0.43$), interpreted as demonstrated to a great extent. This indicates that students were particularly inclined to recognize differences in experiences, identities, beliefs, and historical interpretations. Kropman et al. (2023) found that students exposed to historical texts containing multiple perspectives produced more nuanced representations and incorporated a wider range of actors and contexts than students who encountered less multiperspectival materials. Similarly,

Cheong et al. (2025) emphasized that citizenship education in conflict-affected settings can cultivate “bridge citizens” who understand differences, challenge exclusionary identities, and contribute to peace and social justice. In contrast, responsible participation in community and democratic life obtained the lowest mean of 3.47 (SD = 0.46), although it remained within the great-extent category. This result suggests that students’ respect for democratic values may be stronger than their actual readiness to participate consistently in community organizations, public consultations, elections, advocacy, volunteerism, or collective problem-solving. Barnes et al. (2023) explained that democratic participation requires educational environments where students can practice civil discourse and engage constructively with disagreement rather than merely learn democratic concepts.

Table 5. *Summary Table on the Extent to Which Students Demonstrate Democratic Citizenship*

Democratic Citizenship Dimension	M	SD	VI
1. Respect for diversity and multiple perspectives	3.58	0.43	DGE
2. Commitment to democratic values and principles	3.52	0.45	DGE
3. Openness to dialogue and reasoned disagreement	3.51	0.44	DGE
4. Respect for human rights and social justice	3.57	0.44	DGE
5. Responsible participation in community and democratic life	3.47	0.46	DGE
Overall	3.53	0.40	Demonstrated to a Great Extent

Legend: 4.00 – 3.26 – Demonstrated to a Great Extent (DGE); 3.25 – 2.51 – Demonstrated to a Moderate Extent (DME); 2.50 – 1.76 – Demonstrated to a Low Extent (DLE); 1.75 – 1.00 – Not at all demonstrated (NAD)

The findings imply that Readings in Philippine History should sustain students’ respect for diversity while providing authentic opportunities to translate democratic values into responsible participation. Instruction may incorporate multiperspective source analysis, structured academic controversies, deliberative forums, human-rights case studies, historical simulations, community dialogues, voter and media literacy, public-history projects, and service-learning activities. Kropman et al. (2023) demonstrated that the availability of multiple perspectives improves students’ capacity to construct nuanced historical representations, while Barnes et al. (2023) underscored the importance of intentionally designed opportunities for civil discourse in higher education. Wilke et al. (2022) further cautioned that historical thinking does not automatically transfer into democratic citizenship; students must be guided in connecting historical evidence with contemporary ethical and civic questions. Accordingly, the proposed Future-Ready Historical and Civic Literacy Framework should combine multiperspectivity, human-rights education, reasoned dialogue, and participatory civic experiences so that students progress from respecting democratic ideals to practicing them responsibly in community and democratic life.

Table 6 shows that there were no statistically significant differences between female and male students in historical thinking, $t(233.86) = -0.35$, $p = .727$; AI and digital historical literacy, $t(252.44) = -0.22$, $p = .829$; and civic agency, $t(232.48) = 1.39$, $p = .167$. The nearly identical means in historical thinking and AI and digital historical literacy indicate that both groups perceived comparable capacities to analyze historical evidence and navigate AI-generated and digital historical information. This finding supports the view that these competencies may be influenced more strongly by students’ instructional experiences, exposure to historical inquiry, access to technology, and opportunities to practice verification than by sex alone. Gentallan and Pandan (2024) similarly found that demographic characteristics explained only a small proportion of the variation in Filipino students’ historical thinking. For AI literacy, Mansoor et al. (2024) reported only a slight and nonsignificant difference between male and female university students. However, O’Dea et al. (2026) found gender differences in AI usage, confidence, and problem-solving, indicating that gender patterns in AI literacy may vary depending on context, prior instruction, access, and the specific aspect of literacy being measured.

Female students reported slightly higher democratic citizenship ($M = 3.56$, $SD = 0.39$) than male students ($M = 3.47$, $SD = 0.42$), with a mean difference of 0.09, 95% CI [0.00, 0.19], and a small standardized effect, Hedges’ $g = 0.22$. Although Welch’s t test yielded $t(240.11) = 1.98$ and an unadjusted $p = .048$, the result did not remain statistically significant after applying the Holm-Bonferroni correction across the four sex-based comparisons (adjusted $p = .192$). Thus, the finding indicates only a small descriptive difference and does not provide sufficient evidence of a statistically reliable sex-based difference in democratic citizenship. The direction of the observed pattern broadly resembles findings from ICCS 2022 and related studies reporting higher civic knowledge and stronger support for equality among female students (Alva et al., 2023; Clerkin et al., 2025; Schulz et al., 2023). Nevertheless, given the small effect size, confidence interval near zero, and nonsignificant adjusted probability, no substantive educational or instructional conclusion was drawn from this difference.

Table 6. Differences in the Major Study Variables When Respondents Were Grouped According to Sex

Variable	Female <i>M</i> (<i>SD</i>)	Male <i>M</i> (<i>SD</i>)	<i>t</i>	<i>df</i>	<i>p</i>	Decision
Historical thinking	3.39 (0.36)	3.40 (0.40)	-0.35	233.86	.727	Not significant
AI and digital historical literacy	3.37 (0.39)	3.38 (0.40)	-0.22	252.44	.829	Not significant
Civic agency	3.48 (0.37)	3.41 (0.41)	1.39	232.48	.167	Not significant
Democratic citizenship	3.56 (0.39)	3.47 (0.42)	1.98	240.11	.048	Significant

Note. Female, *n* = 194; male, *n* = 121. Welch's independent-samples *t* test was used.

The findings imply that instructional initiatives should remain inclusive and avoid treating historical thinking, AI literacy, and civic agency as inherently gendered competencies. Both female and male students should receive equivalent opportunities to analyze historical evidence, verify digital information, deliberate on social issues, and participate in civic learning. At the same time, the comparatively lower democratic citizenship mean among male students suggests the value of examining whether differences in socialization, classroom participation, empathy, exposure to diverse perspectives, or attitudes toward equality contribute to the observed result. Mata (2024) found that social responsibility, community connectedness, civic engagement, and empathy were important drivers of civic behavior among Filipino college students, suggesting that these factors may be more educationally actionable than sex itself. The proposed framework should therefore use gender-responsive but non-stereotyping activities, such as multiperspective historical inquiry, human-rights case analysis, structured dialogue, community engagement, and reflective civic projects. Future studies should also report effect sizes, apply appropriate controls for multiple comparisons, and use qualitative evidence to explain why democratic citizenship may vary between groups.

Table 7 reveals a significant strong positive relationship between historical thinking and civic agency, $r = .778$, $p < .001$. This indicates that students who reported stronger competencies in sourcing, contextualizing, corroborating, interpreting evidence, and recognizing multiple perspectives also tended to report greater civic awareness, social responsibility, engagement with contemporary issues, and capacity to contribute to social change. Historical thinking may support civic agency by enabling learners to examine how contemporary problems developed, evaluate competing claims, and formulate informed responses grounded in evidence. Burgos-Videla et al. (2025) explained that the historical method develops critical citizens by linking source analysis and historical discourse with the examination of contemporary social problems. Pérez-Rodríguez et al. (2022) similarly argued that citizenship education should develop individuals who can interpret social realities critically and participate in addressing political, economic, and social challenges. The strength of the correlation suggests that historical thinking is closely connected with students' perceived civic capacity, although it does not establish that historical thinking directly causes civic agency.

Table 7. Relationship Between Historical Thinking and Civic Outcomes

Variables	<i>r</i>	<i>p</i>	Interpretation	Decision
Historical thinking and civic agency	.778	< .001	Strong positive relationship	Significant
Historical thinking and democratic citizenship	.700	< .001	Strong positive relationship	Significant

Note. *N* = 315. Pearson product-moment correlation was used.

Historical thinking was also significantly and strongly associated with democratic citizenship, $r = .700$, $p < .001$. This result indicates that students with stronger historical thinking tended to demonstrate greater respect for diversity, democratic principles, reasoned dialogue, human rights, social justice, and responsible participation. Kropman et al. (2023) found that students exposed to multiperspective historical texts constructed more nuanced accounts and incorporated a wider range of actors and contexts, supporting the role of multiperspectivity in respecting differences. Cheong et al. (2025) similarly emphasized that critical examination of contested histories and identities can develop "bridge citizens" capable of advancing inclusion, peace, and social justice. Wilke et al. (2022), however, cautioned that historical thinking does not automatically transfer to democratic citizenship; such a connection must be supported through deliberate learning experiences. The present correlation supports the theoretical connection between the two constructs, but the shared self-report method and cross-sectional design may have strengthened the observed association and prevent causal conclusions.

The strong relationships of historical thinking with civic agency and democratic citizenship are consistent with earlier Philippine evidence indicating that students perceived engagement with primary sources as contributing to their historical consciousness, cultural identity, and civic responsibility (Alvero, 2026b). However, the

previously identified gap between historical understanding, heritage appreciation, and participatory action suggests that historical knowledge and favorable civic dispositions may not automatically translate into actual civic engagement. The present findings should therefore be interpreted as evidence of covariation among students' self-reported competencies rather than proof that historical thinking directly produces civic agency or democratic citizenship.

The findings imply that Readings in Philippine History should explicitly connect historical inquiry with contemporary civic and democratic concerns. Instruction should require students to analyze primary sources, compare conflicting narratives, identify marginalized perspectives, examine the historical roots of current issues, participate in evidence-based deliberations, and develop historically informed civic responses. The ICCS 2022 international findings underscore that civic knowledge, democratic attitudes, respect for equality, and participation are interconnected but require supportive educational environments (Schulz et al., 2023). Burgos-Videla et al. (2025) likewise recommended historical debates and issue-based inquiry to cultivate critical societal participation, while Wilke et al. (2022) emphasized intentional instructional design when linking historical thinking with citizenship outcomes. Accordingly, the proposed Future-Ready Historical and Civic Literacy Framework should treat historical thinking as a foundation for civic interpretation and action while using performance-based, longitudinal, or intervention research to determine whether improvements in historical thinking produce subsequent gains in civic agency and democratic citizenship.

Table 8 shows that AI and digital historical literacy was significantly and strongly related to all three major study variables. The strongest relationship was with civic agency ($r = .741, p < .001$), followed by historical thinking ($r = .727, p < .001$) and democratic citizenship ($r = .695, p < .001$). These findings indicate that students who critically evaluate AI-generated content, verify information through credible sources, recognize digital misinformation and bias, and use generative AI responsibly also tend to exhibit stronger historical reasoning and civic-democratic orientations. This pattern is consistent with the view that generative AI literacy encompasses not merely the ability to operate digital tools but also the capacity to evaluate their outputs, verify claims, and make ethically informed judgments (Chen et al., 2025; Chu-Ke & Dong, 2024; Kasneci et al., 2023).

The strong relationship between AI and digital historical literacy and historical thinking suggests that evaluating digital historical claims draws upon competencies similar to sourcing, contextualization, corroboration, and evidence-based interpretation. Because generative AI can produce convincing but inaccurate, fabricated, or biased information, students must compare its claims with primary documents and authoritative historical scholarship before accepting them (Farrokhnia et al., 2024; Kasneci et al., 2023). Meanwhile, its strong relationships with civic agency and democratic citizenship imply that students' capacity to navigate digitally mediated information may support informed engagement with contemporary issues, reasoned dialogue, respect for different perspectives, and responsible civic participation. This interpretation is supported by research emphasizing that critical historical inquiry and citizenship education can prepare students to examine competing narratives, deliberate on public issues, and participate more responsibly in democratic life (Burgos-Videla et al., 2025; Pérez-Rodríguez et al., 2022; Schulz et al., 2023; Wilke et al., 2022).

Table 8. *Relationship Between AI and Digital Historical Literacy and the Other Major Study Variables*

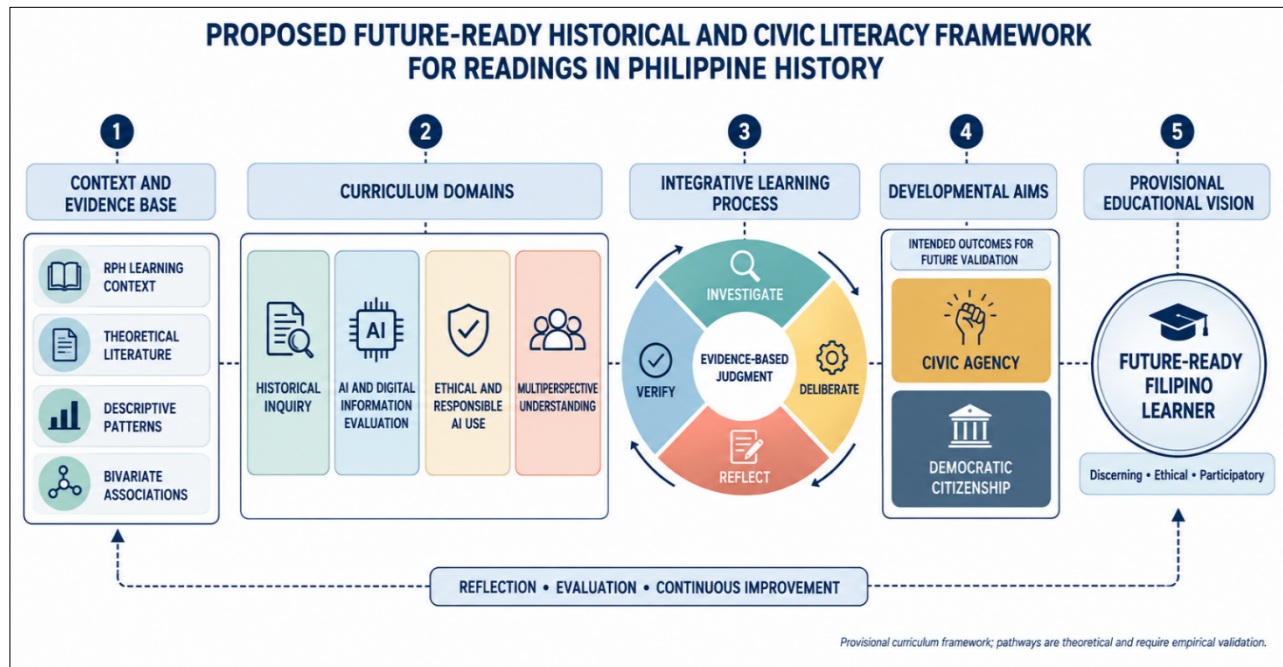
Variables	<i>r</i>	<i>p</i>	Interpretation	Decision
AI and digital historical literacy and historical thinking	.727	< .001	Strong positive relationship	Significant
AI and digital historical literacy and civic agency	.741	< .001	Strong positive relationship	Significant
AI and digital historical literacy and democratic citizenship	.695	< .001	Strong positive relationship	Significant

Note. $N = 315$. Pearson product-moment correlation was used.

The findings imply that AI and digital historical literacy should be embedded as a cross-cutting component of Readings in Philippine History, rather than taught as a separate technical skill. Learning activities may include auditing AI-generated historical accounts, tracing claims to original sources, triangulating evidence, identifying fabricated citations, analyzing ideological bias and historical distortion, and disclosing the ethical use of AI in academic work. These practices should culminate in civic applications such as evidence-based discussions of contemporary Philippine issues, digital public-history projects, and deliberations involving multiple historical perspectives. Nevertheless, because the results are correlational, they do not establish that AI and digital historical literacy causes stronger historical thinking, civic agency, or democratic citizenship. Longitudinal and experimental studies using performance-based assessments are therefore recommended to determine whether structured AI-literacy interventions produce measurable improvements in students' historical and civic competencies.

Proposed Future-Ready Historical and Civic Literacy Framework for Readings in Philippine History

The proposed Future-Ready Historical and Civic Literacy Framework for Readings in Philippine History is a provisional, curriculum-oriented framework designed to guide the integration of historical inquiry, artificial intelligence and digital-information literacy, ethical judgment, and civic learning within the RPH course. It responds to the changing information environment in which students encounter Philippine history not only through textbooks, primary sources, and scholarly publications but also through search engines, social media platforms, online videos, digital archives, and generative artificial intelligence. Although these technologies can expand access to historical information, they may also circulate inaccurate claims, fabricated references, decontextualized narratives, political bias, misinformation, and historical distortion. The framework therefore emphasizes the need to prepare students to become critical evaluators of historical evidence, responsible users of AI, and informed participants in civic and democratic life.



The framework is informed by relevant scholarship, the descriptive patterns observed in the study, and the bivariate associations among students' self-reported historical thinking, AI and digital historical literacy, civic agency, and democratic citizenship. Students reported historical thinking ($M = 3.39$), AI and digital historical literacy ($M = 3.38$), civic agency ($M = 3.45$), and democratic citizenship ($M = 3.53$) to a great extent. Historical thinking was strongly associated with civic agency ($r = .778$) and democratic citizenship ($r = .700$). AI and digital historical literacy was also strongly associated with historical thinking ($r = .727$), civic agency ($r = .741$), and democratic citizenship ($r = .695$). These relationships provide preliminary support for examining historical reasoning, digital discernment, and civic-democratic orientations within an integrated curriculum framework.

However, these results should be interpreted cautiously. The observed correlations do not establish that historical thinking or AI and digital historical literacy causes stronger civic agency or democratic citizenship. The constructs were measured through the same self-report questionnaire at one point in time, which may have increased the observed relationships through common-method variance and conceptual overlap. Moreover, the measurement model has not undergone exploratory or confirmatory factor analysis, discriminant-validity testing, or domain-level reliability assessment. Consequently, the framework is not presented as an empirically validated intervention, a confirmed causal pathway, or evidence that RPH instruction produced the reported competencies. Instead, it is an evidence-informed curriculum proposition that must undergo expert validation, pilot implementation, and systematic outcome evaluation.

The descriptive findings also identified areas that may warrant additional instructional attention. Comparatively lower means were observed for contextualization ($M = 3.34$), historical interpretation and argumentation ($M = 3.35$), ethical and responsible use of generative AI ($M = 3.28$), willingness to participate in civic affairs ($M = 3.38$),

and responsible participation in community and democratic life ($M = 3.47$). Nevertheless, the differences among the dimension means were small, and the scores were concentrated toward the upper end of the response scale. These findings should therefore be treated as descriptive variations rather than conclusive competency deficiencies or definitive instructional priorities. They indicate possible areas for curriculum enrichment that must be confirmed through performance-based assessments, classroom observations, student outputs, and other independent sources of evidence.

Structure of the Framework

The framework consists of five interconnected elements: (1) context and evidence base, (2) curriculum domains, (3) integrative learning process, (4) developmental aims, and (5) provisional educational vision. These elements are connected through reflection, evaluation, and continuous improvement. The relationships shown in the framework are theoretical and curriculum-oriented rather than statistically established causal sequences.

1. Context and Evidence Base

The first element recognizes that the framework is situated within the learning environment of Readings in Philippine History. RPH provides an appropriate curricular context because it requires students to examine primary sources, compare interpretations, understand the historical foundations of contemporary issues, and develop intellectual and civic competencies. Its learning environment should therefore encourage students to treat history as an evidence-based and interpretive discipline rather than as a collection of settled facts.

The framework draws on four sources of guidance: the RPH learning context, relevant theoretical and empirical literature, descriptive patterns from the study, and bivariate associations among the major constructs. The study's findings inform the general direction of the framework but do not independently validate its components or pathways. Academic-program comparisons and dimension-level regression results are not included in the evidence base because the highly unequal program sizes and absence of complete regression diagnostics prevented defensible interpretation.

2. Curriculum Domains

The framework organizes instruction around four curriculum domains.

Historical inquiry develops students' ability to source, contextualize, corroborate, interpret, and evaluate historical evidence. Students should examine who created a source, when and why it was produced, which perspectives it represents, what information it omits, and how it compares with other available evidence. Learning experiences may include primary-source investigations, document-based questions, historical case analyses, corroboration matrices, evidence-based essays, and community-history projects.

AI and digital-information evaluation develops students' capacity to assess historical information encountered through generative AI, social media, websites, online videos, and other digital platforms. Students should verify AI-generated statements, trace claims to credible sources, identify fabricated citations, recognize manipulated images and quotations, and examine how algorithms and platforms influence the visibility and framing of historical narratives. Relevant activities may include AI-output auditing, lateral reading, online fact-checking, quotation and image verification, and comparison of AI-generated responses with primary and scholarly sources.

Ethical and responsible AI use emphasizes transparency, attribution, academic integrity, privacy, human oversight, and accountability. Students should understand that AI-generated information must not be accepted solely because it is coherent or persuasive. They should disclose the use of generative AI, document how outputs were verified, acknowledge appropriate assistance, protect sensitive information, and retain responsibility for the accuracy and ethical quality of their work. Instructional applications may include AI-use disclosure statements, prompt-and-verification logs, citation exercises, ethical case analyses, and classroom protocols for responsible AI use.

Multiperspective historical understanding prepares students to recognize that historical accounts may differ because of available evidence, social position, political interests, cultural background, and interpretive perspective. Students should examine dominant and marginalized narratives, consider the experiences of groups often excluded from conventional accounts, and engage respectfully with competing interpretations. Learning activities may include multiperspective source sets, oral histories, structured academic controversies, positionality

analysis, and comparisons of official, community-based, and marginalized narratives.

These domains are conceptually related and mutually reinforcing. Nevertheless, they should be treated as curriculum-design categories rather than independently validated psychological subscales. Their empirical distinctiveness and measurement properties require further investigation.

3. Integrative Learning Process

The four curriculum domains are enacted through the EVIDENCE Cycle, an iterative instructional process that guides students from encountering a historical claim to applying historical understanding in civic life. Students may return to an earlier stage whenever evidence is insufficient, a claim cannot be verified, or reflection reveals weaknesses in their interpretation.

E – Encounter. Students encounter a historical issue, primary source, AI-generated response, social media post, digital narrative, or contemporary controversy. They initially identify the central claim, issue, or question requiring examination.

V – Verify. Students examine the authorship, origin, date, purpose, intended audience, credibility, supporting evidence, citations, and digital provenance of the information. Verification prevents students from accepting historical claims solely because they appear authoritative or are frequently circulated.

I – Investigate. Students locate credible primary and secondary sources and gather evidence that supports, qualifies, or contradicts the original claim. Investigation expands the evidentiary basis of historical understanding and reduces dependence on a single account.

D – Detect. Students identify misinformation, disinformation, ideological bias, factual omission, manipulation, decontextualization, fabricated references, and historical distortion. This stage is particularly important when examining AI-generated and platform-mediated content.

E – Examine Perspectives. Students compare competing interpretations and determine whose perspectives are represented, marginalized, excluded, or challenged. They consider how historical position, power, identity, and available evidence influence the construction of historical accounts.

N – Navigate Ethical AI Use. Students use generative AI and digital tools transparently, critically, and responsibly. They verify outputs, acknowledge AI assistance, observe academic-integrity requirements, protect privacy, and ensure that human judgment remains central to historical interpretation.

C – Construct Interpretation. Students synthesize the available evidence and develop a reasoned historical explanation, argument, or judgment. Their conclusions should be logically organized, supported by credible evidence, and appropriately qualified when the evidence remains incomplete or contested.

E – Engage in Civic Action. Students connect historical understanding with contemporary social, cultural, political, and community concerns. Depending on the learning objectives, they may participate in informed discussion, prepare an issue brief, develop a public-history project, conduct community research, or propose an appropriate civic response.

Evidence-based judgment lies at the center of the EVIDENCE Cycle. It represents the capacity to make conclusions that are grounded in credible sources, attentive to context and perspective, open to revision, and ethically communicated. The process integrates historical reasoning with digital discernment and civic responsibility.

4. Developmental Aims

The framework identifies civic agency and democratic citizenship as intended developmental aims requiring future validation. Civic agency concerns students' awareness of public issues, willingness to participate in civic affairs, sense of social responsibility, and perceived capacity to contribute to positive social change. Democratic citizenship encompasses respect for diversity, commitment to democratic principles, openness to dialogue and reasoned disagreement, respect for human rights and social justice, and responsible participation in community and democratic life.

These aims extend the purpose of RPH beyond the acquisition of historical knowledge. Historical learning becomes educationally meaningful when students can use evidence from the past to understand contemporary conditions, evaluate public claims, participate in informed dialogue, and respond responsibly to community concerns. However, the framework does not assume that historical inquiry automatically produces civic participation or democratic behavior. These outcomes must be deliberately supported through authentic learning experiences and evaluated using performance tasks, behavioral indicators, reflective evidence, and longitudinal assessment.

5. Provisional Educational Vision

The ultimate educational vision is the development of a future-ready Filipino learner who is discerning, ethical, and participatory. A discerning learner evaluates historical and digital claims critically, verifies information, recognizes bias, and distinguishes credible evidence from misinformation or manipulation. An ethical learner uses sources and artificial intelligence transparently, respects intellectual ownership and human dignity, and accepts responsibility for the consequences of personal judgments and digital practices. A participatory learner applies historical understanding to contemporary concerns, engages respectfully with diverse perspectives, and contributes to community and democratic life.

This vision does not describe an outcome already achieved by the respondents or guaranteed by the implementation of the framework. It serves as a curriculum direction that should guide the selection of learning outcomes, teaching strategies, assessment methods, faculty-development initiatives, and institutional support mechanisms.

Reflection, Evaluation, and Continuous Improvement

The feedback loop connecting the provisional educational vision with the RPH learning context emphasizes that framework implementation should remain reflective and evidence-based. Teachers and institutions should regularly evaluate the relevance of learning materials, quality of student outputs, effectiveness of instructional strategies, accessibility of digital resources, ethical use of AI, faculty readiness, and unintended consequences of implementation. Findings from classroom assessment, student and faculty feedback, and subsequent research should be used to revise the curriculum domains, EVIDENCE Cycle, assessment system, and implementation strategies.

Before institutional adoption, the framework should undergo expert validation for conceptual coherence, relevance, feasibility, and alignment with RPH outcomes. Its measurement model should be examined through exploratory and confirmatory factor analyses using independent and sufficiently large samples. Scale and subscale reliability should also be established using appropriate coefficients. Pilot implementation should employ validated measures, performance-based historical inquiry tasks, digital-verification assessments, authentic civic-learning outputs, and indicators of implementation fidelity. Longitudinal, quasi-experimental, experimental, or mixed-methods research may then determine whether participation in framework-guided instruction is associated with measurable changes in students' historical reasoning, digital discernment, ethical AI practices, civic agency, and democratic citizenship.

Accordingly, the proposed framework should be understood as a theoretically grounded and evidence-informed starting point for curriculum development rather than a final or empirically established instructional model. Its value lies in offering a coherent structure for connecting historical inquiry, responsible engagement with AI and digital information, multiperspective understanding, and civic-democratic learning while maintaining appropriate methodological caution.

Conclusion

Students reported historical thinking, AI and digital historical literacy, civic agency, and democratic citizenship to a great extent, although comparatively lower means emerged for contextualization, historical argumentation, ethical AI use, civic participation, and responsible democratic engagement. Historical thinking and AI and digital historical literacy were strongly associated with civic agency and democratic citizenship, suggesting that historical reasoning, digital discernment, and civic orientations warrant integrated attention. However, these findings remain descriptive and noncausal because they were derived from cross-sectional self-reports collected at one

institution. Their interpretation is further limited by possible ceiling effects, common-method variance, and the absence of factor-analytic and discriminant-validity evidence.

The proposed Future-Ready Historical and Civic Literacy Framework may guide the integration of source investigation, contextualization, corroboration, multiperspectivity, AI-information verification, deliberative discussion, public-history projects, and community-based research in RPH. Before institutional adoption, however, the framework should undergo expert validation, feasibility assessment, pilot implementation, and outcome evaluation. Future studies should employ independently validated measures, performance-based and behavioral indicators, balanced multisite samples, and longitudinal, experimental, or mixed-methods designs to determine whether the framework produces measurable improvements in historical reasoning, digital discernment, civic participation, and democratic citizenship.

Contributions of Authors

Author: Led the conceptualization and overall research design of the study, prepared the original draft, conducted data analysis and interpretation, and developed the proposed framework. The author also oversaw the entire research process and finalized the manuscript, while contributing to the refinement and fine-tuning of the paper, formatting it in accordance with publication standards, enhancing the methodological section, and ensuring overall clarity, coherence, and readiness for publication.

Funding

This study received no external funding.

Conflict of Interests

The authors declare no conflict of interest.

Acknowledgment

The author expresses sincere appreciation to the Research, Evaluation, and Publication Office (REPO) of San Pablo Colleges for granting permission to conduct this study and for providing valuable guidance and support throughout the research process. The Office's assistance and institutional support contributed significantly to the successful completion of this research.

References

- Alva, E., Urcia, M., & Vivas, V. (2023). Civic engagement of future citizens: An insight from Peruvian students' attitudes towards relevant societal issues as predictors of expected conventional political participation. *Child Indicators Research*, 16(5), 2187–2221. <https://doi.org/10.1007/s12187-023-10049-7>
- Alvero, J.C. (2023). Promoting cultural heritage preservation: Analyzing the effectiveness of teaching historical significance on contemporary Filipino culture. *Philippine Interdisciplinary Research Journal*, 1(1). <https://www.researchgate.net/publication/374530302>
- Alvero, J.C. (2024). Impact of Readings in Philippine History among freshmen college students in a private tertiary education institution in Laguna, Philippines: Basis for curriculum enhancement. <https://doi.org/10.13140/RG.2.2.31990.82248>
- Alvero, J.C. (2025a). Empowering future global citizens: An integrated GCED framework for enhancing cognitive, socio-emotional, and behavioral domains in Philippine higher education. *Journal of Interdisciplinary Perspectives*, 3(9), 383–390. <https://doi.org/10.69569/jip.2025.564>
- Alvero, J.C. (2025b). TPAC-based assessment of faculty integration of artificial intelligence in general education courses toward advancing SDG 4: Basis for a faculty capacity development program. *Cognizance Journal of Multidisciplinary Studies*, 5(10), 472–485. <https://doi.org/10.47760/cognizance.2025.v05i10.043>
- Alvero, J.C. (2026a). Generative AI as the “third eye” of academic advising: Ethical, pedagogical, and methodological perspectives in research supervision. *Cognizance Journal of Multidisciplinary Studies*, 6(1). DOI: 10.47760/cognizance.2026.v06i01.001
- Alvero, J.C. (2026b). From narratives to nationhood: A mixed-methods study of Philippine primary sources toward a proposed PAMANA model for heritage, identity, historical consciousness, and civic engagement. *Sapientia Filipina: Review of Education and Multidisciplinary Studies*, 1(1). <https://journals.nexoraid.com/sapientia/en/article/view/18>
- Alvero, J.C., & Saldua, M. (2026). Teachers' perceptions and utilization of generative AI in assessment and feedback: Evidence for policy development in basic education. *Journal of Interdisciplinary Perspectives*, 4(6). <https://doi.org/10.69569/jip.2026.150>
- Andal, R.A., & Hermosa, J. (2023). Learning style of Grade Eight students: Basis on enhancing historical thinking skills using contextualized learning activities in Araling Panlipunan. *International Journal of Multidisciplinary: Applied Business and Education Research*, 4(5), 1639–1650. <https://doi.org/10.11594/ijmaber.04.05.25>
- Andina-Díaz, E., Ventura-Miranda, M.I., Quiroga-Sánchez, E., Ortega-Galán, A.M., Fernández-Medina, I.M., & Ruiz-Fernández, M.D. (2023). Nursing students' perception about gender inequalities presented on social networks: A qualitative study. *International Journal of Environmental Research and Public Health*, 20(3), 1962. <https://doi.org/10.3390/ijerph20031962>
- Asio, J.M.R., Mendoza, K. J., & Soriano, I. (2022). The general education curriculum in the Philippines: A policy analysis. *International Journal of Law and Public Policy*, 4(2), 66–74. <https://doi.org/10.36079/lamintang.ijlapp-0402.403>
- Barnes, P., Morris, M., Pierce, A.L., & Shaffer, T. (2023). Answering the call: Offering and analyzing civil discourse opportunities in undergraduate public affairs education. *Journal of Public Affairs Education*, 29, 1–21. <https://doi.org/10.1080/15236803.2022.2148604>
- Brozmanová Gregorová, A., Heinzová, Z., Subasi Singh, S., Laven, R., Vamos, M., Arco-Tirado, J.L., Fernández-Martin, F.D., Gleeson, T., & Ryan, P. (2024). The impact of service-learning on secondary school students' social and civic competencies, and engagement and motivation in school: Perspectives from Europe. *International Journal of Research on Service-Learning and Community Engagement*, 12(1). <https://doi.org/10.37333/001c.127553>
- Burgos-Videla, C., Parada-Ulloa, M., & Martínez-Díaz, J. (2025). Critical thinking in the classroom: The historical method and historical discourse as tools for teaching social studies. *Frontiers in Sociology*, 10, 1526437. <https://doi.org/10.3389/fsoc.2025.1526437>
- Chang, D.-F., You, J.-Y., & Chang, A. (2023). College students' civic engagement efficacy and their implementing effects in selected STEM programs. *SAGE Open*, 13(4), 1–13. <https://doi.org/10.1177/21582440231220128>
- Chen, K., Tallant, A., & Selig, I. (2025). Exploring generative AI literacy in higher education: Student adoption, interaction, evaluation and ethical perceptions. *Information and Learning Sciences*, 126(1/2), 132–148. <https://doi.org/10.1108/ILS-10-2023-0160>
- Cheong, S.M.C., Azada-Palacios, R., & Beyre, K. (2025). Becoming bridge citizens: Educating for social justice in conflict-affected settings. *Education, Citizenship and Social Justice*, 20(2), 237–256. <https://doi.org/10.1177/17461979231222904>
- Choi, Y., Han, J., & Kim, H. (2026). Exploring key service-learning experiences that promote students' learning in higher education. *Asia Pacific Education Review*, 27(1), 287–302. <https://doi.org/10.1007/s12564-023-09833-5>
- Chu-Ke, C., & Dong, Y. (2024). Misinformation and literacies in the era of generative artificial intelligence: A brief overview and a call for future research. *Emerging Media*, 2(1), 70–85. <https://doi.org/10.1177/27523543241240285>
- Claravall, E., & Irey, R. (2022). Fostering historical thinking: The use of document-based instruction for students with learning differences. *The Journal of Social Studies Research*, 46(3), 249–264. <https://doi.org/10.1016/j.jsr.2021.08.001>
- Clerkin, A., Welmond, M., & Gregory, L. (2025). International gender differences in civic knowledge and attitudes: Implications and ways forward. IEA Compass Briefs in Education, No. 28. International Association for the Evaluation of Educational Achievement. <https://tinyurl.com/yn7peu9m>
- Commission on Higher Education. (2013). CHED Memorandum Order No. 20, series of 2013: General education curriculum – Holistic understandings, intellectual and civic competencies. <https://legacy.ched.gov.ph/2013-ched-memorandum-orders/>
- Fajardo, M.F. (2023). Filipino students' competency in evaluating digital media content credibility: “Beginning” to “emerging” levels. *Journal of Media Literacy Education*, 15(2), 58–70.

- <https://doi.org/10.23860/JMLE-2023-15-2-5>
- Farrokhnia, M., Banihashem, S.K., Noroozi, O., & Wals, A. (2024). A SWOT analysis of ChatGPT: Implications for educational practice and research. *Innovations in Education and Teaching International*, 61(3), 460–474. <https://doi.org/10.1080/14703297.2023.2195846>
- García-López, I.M., & Trujillo-Liñán, L. (2025). Ethical and regulatory challenges of generative AI in education: A systematic review. *Frontiers in Education*, 10, 1565938. <https://doi.org/10.3389/feduc.2025.1565938>
- Gentallan, J.N., & Pandan, M.S. (2024). Historical thinking skills of education students across specializations. *Psychology and Education: A Multidisciplinary Journal*, 22(2), 198–205. <https://doi.org/10.5281/zenodo.12748987>
- Kasneji, E., Sessler, K., Küchemann, S., Bannert, M., Dementieva, D., Fischer, F., Gasser, U., Groh, G., Günnemann, S., Hüllermeier, E., Krusche, S., Kutyniok, G., Michaeli, T., Nerdel, C., Pfeffer, J., Poquet, O., Sailer, M., Schmidt, A., Seidel, T., & Kasneji, G. (2023). ChatGPT for good? On opportunities and challenges of large language models for education. *Learning and Individual Differences*, 103, 102274. <https://doi.org/10.1016/j.lindif.2023.102274>
- Kropman, M., van Drie, J., & van Bostel, C. (2023). The influence of multiperspectivity in history texts on students' representations of a historical event. *European Journal of Psychology of Education*, 38(3), 1295–1315. <https://doi.org/10.1007/s10212-022-00644-7>
- Madayag, R., Esteron, J., Lozano, D.A., Bautista, E., Fernandez, Z., & Ramirez, D. (2024). Nursing students' lived experiences with using AIDET in patient communication: A qualitative study in the Philippines. *Belitung Nursing Journal*, 10(3), 294–303. <https://doi.org/10.33546/bnj.3258>
- Mansoor, H.M.H., Bawazir, A., Alsabri, M.A., Alharbi, A., & Okela, A.H. (2024). Artificial intelligence literacy among university students: A comparative transnational survey. *Frontiers in Communication*, 9, 1478476. <https://doi.org/10.3389/fcomm.2024.1478476>
- Mata, R.R. (2024). Socio-environmental factors, empathy, and social responsibility as drivers of civic behavior among college students. 11th International Scholars Conference, 11(4), 1349–1361. <https://doi.org/10.35974/isc.v11i4.3653>
- Maurud, S., Børåsund, E., & Moen, A. (2022). Gender and ethnicity's influence on first-year nursing students' educational motivation and career expectations: A cross-sectional study. *Nursing Open*, 9(3), 1662–1669. <https://doi.org/10.1002/nop2.1191>
- O'Dea, X., Ng, D.T.K., O'Dea, M., & Shkuratsky, V. (2026). Factors affecting university students' generative AI literacy: Evidence and evaluation in the UK and Hong Kong contexts. *Policy Futures in Education*, 24(1), 13–34. <https://doi.org/10.1177/14782103241287401>
- Ofianto, Aman, Ningsih, T.Z., & Abidin, N.F. (2022). The development of historical thinking assessment to examine students' skills in analyzing the causality of historical events. *European Journal of Educational Research*, 11(2), 609–619. <https://doi.org/10.12973/eu-jer.11.2.609>
- Pandan, M.S., Ebojo, J.K.C., & Pesidas, A. (2025). Exploring student historical thinking skills and awareness in Bohol's resistance movements (1621–1829). *EIKI Journal of Effective Teaching Methods*, 3(2). <https://doi.org/10.59652/jetm.v3i2.524>
- Pérez-Rodríguez, N., de-Alba-Fernández, N., & Navarro-Medina, E. (2022). University and challenge of citizenship education: Professors' conceptions in training. *Frontiers in Education*, 7, 989482. <https://doi.org/10.3389/feduc.2022.989482>
- Qu, Y., Tan, M.X.Y., & Wang, J. (2024). Disciplinary differences in undergraduate students' engagement with generative artificial intelligence. *Smart Learning Environments*, 11, Article 51. <https://doi.org/10.1186/s40561-024-00341-6>
- Saavedra, J.A., Ruiz, L., & Alcalá, L. (2022). Critical service-learning supports social justice and civic engagement orientations in college students. *Michigan Journal of Community Service Learning*, 28(1), 1–27. <https://doi.org/10.3998/mjcs.292>
- Schulz, W., Fraillon, J., Losito, B., Agrusti, G., Ainley, J., Damiani, V., & Friedman, T. (2023). Education for citizenship in times of global challenge: IEA International Civic and Citizenship Education Study 2022 international report. International Association for the Evaluation of Educational Achievement. <https://tinyurl.com/bdhr4b9>
- Steiss, J., Krishnan, J., & Wang, J. (2024). Designing writing prompts to elicit students' historical thinking. *The Social Studies*, 115(6), 323–339. <https://doi.org/10.1080/00377996.2024.2324926>
- Tlili, A., Shehata, B., Adarkwah, M.A., Bozkurt, A., Hickey, D., Huang, R., & Agyemang, B. (2023). What if the devil is my guardian angel: ChatGPT as a case study of using chatbots in education. *Smart Learning Environments*, 10, Article 15. <https://doi.org/10.1186/s40561-023-00237-x>
- UNESCO. (2023). Guidance for generative AI in education and research. <https://tinyurl.com/yfkdy94r>
- UNESCO. (2025). What you need to know about UNESCO's new AI competency frameworks for students and teachers. <https://tinyurl.com/ycxbu555>
- United Nations. (n.d.-a). Goal 4: Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all. <https://sdgs.un.org/goals/goal4>
- United Nations. (n.d.-b). Goal 16: Promote just, peaceful and inclusive societies. <https://sdgs.un.org/goals/goal16>
- Wilke, M., Depaepe, F., & Van Nieuwenhuyse, K. (2022). Fostering historical thinking and democratic citizenship? A cluster randomized controlled intervention study. *Contemporary Educational Psychology*, 71, 102115. <https://doi.org/10.1016/j.cedpsych.2022.102115>
- Wilke, M., Depaepe, F., & Van Nieuwenhuyse, K. (2023). Fostering secondary students' historical thinking: A design study in Flemish history education. *Journal of Formative Design in Learning*, 7, 1–21. <https://doi.org/10.1007/s41686-023-00074-8>