

INTEGRATION OF DIGITAL LEARNING TOOLS IN TEACHING GRADE SEVEN ARLING PANLIPUNAN

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Abstract

This study examined the extent to which digital learning tools are integrated in teaching Grade 7 Arling Panlipunan (AP) at Calasiao Comprehensive National High School (CCNHS) and determined whether teacher-related factors are associated with integration levels. Using a descriptive–correlational design, the study involved total enumeration of all Grade 7 AP teachers (n = 18). Data were collected through a researcher-developed survey questionnaire and complemented by semi-structured interviews to capture both quantifiable patterns of technology use and contextual explanations for observed practices. Quantitative data were analyzed using frequency and percentage distributions, weighted mean, and Spearman’s rank-order correlation, while qualitative responses were subjected to thematic analysis. Results indicated a generally moderate-to-high level of integration with digital learning tools, with stronger integration in lesson delivery and content presentation than in domains requiring sustained learner interaction, enrichment, and remediation. Teachers reported using commonly accessible tools such as multimedia presentations, online learning resources, and digital assessment platforms, reflecting practical instructional needs and available resources. Correlational findings further suggested that integration levels varied across respondents and tended to increase with greater exposure to capacity-building activities and relevant training. Interview data supported these results by identifying recurring enabling factors (e.g., availability of ready-made digital materials and perceived usefulness for engagement) and persistent constraints (e.g., unstable internet connectivity, limited learner devices, and time demands in designing interactive digital tasks). The study concludes that while digital learning tools are increasingly embedded in Grade 7 AP instruction at CCNHS, deep and equitable integration remains constrained by infrastructure and implementation conditions. Findings informed the development of a context-responsive Digital Learning Integration Action Plan to strengthen consistency, instructional alignment, and sustainability of technology-supported AP teaching.

Keywords: Digital Learning Tools; Technology Integration; Arling Panlipunan; Grade 7; Descriptive–Correlational; Teacher Capacity-Building; Secondary Education

1. Introduction

Digital technologies are increasingly embedded in basic education as education systems adopt policies and invest in modernizing teaching and learning while expanding access to quality resources. Across countries, the use of information and communication technologies (ICT) in schools is now frequently positioned as a key driver of education transformation, encompassing curriculum delivery, teacher professional development, and system management. UNESCO (2023) notes that many systems are pursuing broad digital education strategies, but also cautions that technology adoption is highly uneven across contexts and that outcomes are not automatic. In the Global Education Monitoring (GEM) Report on technology in education, UNESCO emphasizes that decisions on education technology should be guided by relevance, equity, scalability, and sustainability, and that careful evaluation is needed to avoid widening existing learning gaps (UNESCO, 2023). This framing highlights why localized, school-based evidence

remains essential: policy direction and platform availability do not necessarily translate into consistent classroom integration.

The ongoing digital transformation of schooling is also shaped by rapid developments in digital platforms, connectivity, and educational applications used in instruction and school operations. The OECD underscores that digital transformation affects how schools are resourced and how teaching is organized, including the availability and use of digital resources for learning (Organisation for Economic Co-operation and Development [OECD], 2023). At the classroom level, digital learning tools may include presentation software, multimedia resources, interactive maps, simulations, collaborative platforms, and online assessment tools. When aligned with instructional purposes, such tools can enhance content delivery and learner engagement by providing multiple representations of concepts and enabling more flexible pedagogical approaches. The World Bank frames education technology (EdTech) as encompassing hardware, software, digital content, and data systems that can enrich teaching and learning when deployed to solve clearly identified educational problems (World Bank, n.d.). This perspective reinforces that technology integration is not an end in itself, but a means to improve instructional quality and learner outcomes.

Beyond supporting instruction, digital tools increasingly shape assessment and feedback practices. Digital platforms can enable more frequent formative checking, immediate feedback, and data-informed instructional decisions. The World Bank highlights that education systems are expanding the use of technology-supported assessment and learning analytics to inform instruction and personalize learning experiences (World Bank, 2022). In classroom practice, this may take the form of online quizzes, automated item feedback, digital submission of outputs, and organized tracking of learner progress. When used strategically, these tools can shorten feedback cycles and support timely instructional adjustments, particularly in foundational grade levels where misconceptions can accumulate if not addressed early.

Digital learning tools also strengthen learner engagement by promoting participation, collaboration, and active knowledge construction. The OECD's analysis of digital resource use indicates that outcomes depend not only on whether digital resources are available, but on how teachers and learners use them for learning activities; the report shows substantial variation in patterns of use within and across contexts (OECD, 2023). This finding is critical for school-based research because it suggests that documenting actual classroom practices is necessary to understand whether technology integration remains limited to teacher-centered delivery or extends to more interactive, inquiry-oriented tasks.

These issues are particularly relevant in Araling Panlipunan (AP), a learning area that requires learners to interpret relationships among people, places, time, and systems using evidence and contextual reasoning. The K to 12 Araling Panlipunan Curriculum Guide emphasizes the development of competencies expected of a "functionally literate and developed Filipino," including communication, analysis, and civic competence (Department of Education, 2019). Digital tools can help operationalize these goals by supporting access to authentic sources, enabling visualization of spatial and temporal patterns, and facilitating inquiry routines that require evidence-based explanation. For example, interactive maps and geospatial tools may help Grade 7 learners visualize geographic features, migration routes, trade networks, and territorial changes more effectively than static materials. Similarly, digital timelines and curated multimedia resources can support chronological reasoning and historical understanding by providing multiple entry points for comprehension.

AP instruction is also uniquely positioned to benefit from digital integration because the subject's themes—governance, rights, community issues, and civic responsibilities—are strongly connected to current events and the information environments learners navigate daily. UNESCO's media and information literacy guidance emphasizes competencies such as accessing information effectively, evaluating credibility, and using information ethically—capabilities aligned

with AP learning tasks that require learners to analyze sources, judge claims, and make informed civic decisions (UNESCO, 2022). In this sense, digital learning tools are not merely delivery supports; they can become vehicles for strengthening information literacy and civic reasoning when learning activities require learners to verify sources, synthesize evidence, and justify conclusions.

In the Philippine public secondary school context, the integration of digital technologies is increasingly visible in day-to-day instruction, particularly through expanded access to digital learning resources alongside printed and other modalities. DepEd has supported learning resources through repositories such as the DepEd Learning Portal and related tools for locating learning materials (Department of Education, n.d.). During and after pandemic-related shifts in learning delivery, schools and teachers have increasingly relied on accessible, familiar digital tools—such as presentation platforms, educational videos, and online quizzes—to sustain lesson continuity and support learner engagement. However, implementation often reflects uneven realities across schools, shaped by differences in infrastructure, internet reliability, device availability, and learner readiness. UNESCO’s case study on education technology in the Philippines highlights how infrastructure, ICT capability, and enabling policies intersect with school-level conditions and resource gaps, influencing the consistency with which technology is adopted and utilized in teaching and learning (UNESCO, 2023).

These national-level realities underscore the need for classroom-level evidence. While policy texts and system initiatives promote technology integration, available information often remains at the macro level, focusing on platform availability or national intentions rather than on how integration unfolds within specific subjects, grade levels, and school contexts. Research and sector analyses consistently point to recurring constraints—intermittent connectivity, limited access to devices, teacher training needs, time constraints for preparing digital materials, and varying learner digital readiness—that shape classroom practice. Yet these constraints must be described and validated within local contexts if interventions are to be actionable and equitable.

For Calasiao Comprehensive National High School (CCNHS), these broader realities provide a context for understanding how Grade 7 AP teachers integrate digital learning tools in practice. The local school setting operates within DepEd’s broader resource ecosystem while managing on-the-ground constraints and opportunities. In such a context, teachers may use a practical mix of digital presentations and videos for instruction, online quizzes for formative assessment, and collaborative platforms for learner outputs when connectivity allows. However, without systematic documentation, it remains unclear how frequently teachers integrate these tools, which instructional domains they support (planning, delivery, learning activities, assessment/feedback, enrichment/remediation), and whether tool use extends beyond basic presentation toward more learner-centered inquiry and collaboration. This is a critical gap because “availability” of tools does not necessarily equate to “instructional integration” of tools; moreover, superficial integration can limit the potential contribution of technology to deeper learning outcomes.

The absence of school-based evidence has practical consequences. If the gap remains unaddressed, digital tool integration in Grade 7 AP may remain inconsistent and teacher-dependent, resulting in uneven learning experiences across classes. UNESCO’s GEM Report cautions that technology use must be evaluated on the basis of relevance, equity, scalability, and sustainability, because adoption that is not guided by evidence can lead to fragmented or low-impact practices and may exacerbate inequities (UNESCO, 2023). From an equity perspective, inconsistent integration may also widen opportunity gaps if learners’ access to devices and connectivity differs, limiting participation in digital learning tasks outside the classroom. Additionally, without targeted support, teachers may default to a presentation-focused approach rather than leveraging tools to support inquiry, collaboration, and formative feedback cycles that strengthen AP competencies.

In response to these concerns, this study focuses on determining the extent to which digital learning tools are integrated into Grade 7 Araling Panlipunan instruction at Calasiao Comprehensive National High School and on generating school-based evidence to guide instructional improvement. Anchored on the AP curriculum's emphasis on 21st-century competencies and meaningful learning experiences (Department of Education, 2019), the study examines integration across key instructional processes: lesson planning, lesson delivery, learning activities and collaboration, assessment and feedback, and enrichment and remediation. It also identifies the most commonly used tools and their instructional purposes, and it examines enabling and constraining factors such as connectivity, device availability, teacher capacity, time for preparation, and learner readiness. By documenting these classroom-level realities, the study responds to international guidance that emphasizes evidence-based and context-responsive approaches to EdTech implementation (UNESCO, 2023; World Bank, 2022).

Ultimately, the value of the study lies in producing actionable findings for teachers and school leaders. Rather than assuming that technology integration is occurring because tools exist or policies encourage use, the study provides a grounded description of actual practice in Grade 7 AP classrooms at CCNHS. The findings are expected to inform a Digital Learning Integration Action Plan tailored to the school context, specifying priority tools, capacity-building activities, implementation steps, and monitoring indicators that strengthen consistency, instructional alignment, and equity in digital tool use. In doing so, the research aims to support the sustained and purposeful integration of digital learning tools to improve teaching quality, enhance learner engagement, and develop critical competencies in Araling Panlipunan.

2. Method

2.1 Research Design

This study employed a descriptive–correlational research design to determine the extent to which digital learning tools are integrated in teaching Grade 7 Araling Panlipunan (AP) at Calasiao Comprehensive National High School (CCNHS) and to examine the relationship between selected teacher-related factors and the degree of integration. The descriptive component was used to generate a systematic profile of respondents and to quantify the level of digital tool integration across key instructional domains, including lesson preparation, instructional delivery, learning activities, assessment and feedback, and enrichment or remediation. The correlational component was used to assess whether variations in integration levels were statistically associated with teacher characteristics, including age, years of teaching experience, educational attainment, and relevant training exposure. This design was selected because it enables the study to describe prevailing conditions while also testing the presence and direction of relationships among variables without manipulating the teaching environment, making it appropriate for a natural school setting where instructional practices are observed as they occur.

2.2 Participants

The study consisted of all Araling Panlipunan (AP) teachers handling Grade 7 classes at Calasiao Comprehensive National High School (CCNHS) during the research. A total enumeration sampling approach was employed to ensure comprehensive representation of the target population and to capture the full range of digital learning tool integration practices within the Grade 7 AP teaching group. In total, eighteen (18) teachers participated in the study, representing the complete set of AP teachers assigned to Grade 7 classes in the school. This sampling strategy was selected to strengthen the reliability of school-level conclusions by minimizing selection bias and ensuring that findings reflected the actual conditions and instructional practices of the entire Grade 7 AP teaching cohort in the locale.

2.3 Instrumentation

Data were collected using a researcher-developed survey questionnaire and a semi-structured interview guide, designed to capture both the measurable extent of digital learning tool integration and the contextual factors influencing its use in Grade 7 Araling Panlipunan at Calasiao Comprehensive National High School (CCNHS). The survey instrument consisted of two major parts: the first gathered respondents' profile variables (e.g., age, years of teaching experience, educational attainment, and relevant trainings), while the second measured the extent of integration of digital learning tools across key instructional domains, including lesson planning and preparation, instructional delivery, learning activities, assessment and feedback, and enrichment or remediation. Responses were recorded on a Likert-type scale to quantify integration levels and facilitate statistical analysis. To complement the survey data, semi-structured interviews were conducted to elicit deeper explanations of teachers' experiences, the tools they commonly use, and the enabling or constraining conditions (e.g., connectivity, device availability, and competence with digital platforms). The combined use of quantitative and qualitative instruments strengthened the study's methodological rigor by enabling triangulation and providing both breadth and depth in describing digital learning tool integration practices within the target teaching cohort.

2.4 Data Analysis

Quantitative data from the survey questionnaire were coded, tabulated, and analyzed using descriptive and inferential statistical procedures aligned with the study objectives. Respondents' profile variables were summarized using frequency counts and percentages to describe the demographic and professional characteristics of the Grade 7 Araling Panlipunan teachers. The extent of digital learning tool integration across instructional domains was examined by computing weighted means, supported by standard interpretation schemes to determine overall and domain-specific integration levels. To test the relationship between teacher-related variables and the extent of integration, the study employed Spearman's rank-order correlation (Spearman rho), which was appropriate given the ordinal nature of Likert-scale data and the study's interest in identifying the strength and direction of associations without assuming normal distribution. Qualitative data from semi-structured interviews were analyzed using thematic analysis, wherein responses were transcribed, coded, and grouped into recurring categories and themes that explained patterns of tool use, perceived benefits, and implementation constraints. Integrating quantitative outputs with qualitative themes allowed the analysis to provide a more comprehensive interpretation of digital learning tool integration practices and the contextual conditions shaping their use in Grade 7 AP classrooms.

3. Results

Findings indicated that Grade 7 Araling Panlipunan (AP) teachers at Calasiao Comprehensive National High School (CCNHS) demonstrated an overall moderate to high level of integration of digital learning tools, with variations observed across instructional domains. The integration was most evident in lesson delivery and content presentation, where teachers frequently used digital resources to support explanations and enhance learner engagement, while comparatively lower—but still functional—levels of integration were observed in domains requiring sustained interactivity such as collaborative learning activities, enrichment, and remediation. The results further showed that teachers relied on a set of commonly accessible tools (e.g., presentation and multimedia platforms, online quizzes, and basic productivity applications), reflecting both instructional practicality and the constraints of connectivity and device availability in the school setting. Correlational analysis suggested that the extent of digital learning tool integration was not uniform across respondents and was associated with selected teacher-related factors, particularly those related to professional exposure and capacity-

building (e.g., relevant trainings), indicating that integration strengthened as teachers gained more opportunities to develop digital competence. Qualitative responses supported the quantitative trends by identifying recurring enabling conditions (e.g., ease of use and availability of ready-made materials) and persistent constraints (e.g., unstable internet access, limited learner devices, and time demands in preparing digital activities), which collectively shaped the consistency and depth of classroom-level technology use.

4. Discussion

The findings indicate that Grade 7 Araling Panlipunan (AP) teachers at Calasiao Comprehensive National High School (CCNHS) were able to integrate digital learning tools to a moderate-to-high extent, with stronger use concentrated in lesson delivery and content presentation and comparatively more limited integration in learning activities requiring sustained interaction, enrichment, and remediation. This pattern aligns with international evidence that technology adoption in schools often begins with tools that support teacher-led instruction (e.g., slides, videos, and basic multimedia) because these are easier to implement under constraints of time, infrastructure, and learner device availability. The 2023 UNESCO Global Education Monitoring (GEM) Report emphasizes that technology is not inherently transformative; rather, its learning value depends on how purposefully it is selected, embedded, and supported within teaching practices, and it warns that systems frequently overestimate impact when technology use remains superficial or uneven (UNESCO, 2023). From this perspective, the study's observed variability across instructional domains suggests that while teachers have begun normalizing digital tools in classroom routines, integration may still be transitioning from "enhanced delivery" toward deeper pedagogical use—particularly where AP learning tasks demand inquiry, analysis of sources, and collaborative production of evidence-based outputs.

The results also suggest that teacher capacity-building is a meaningful lever for improving the quality and consistency of digital integration. Where integration levels were associated with professional exposure such as training, the implication is consistent with the World Bank's EdTech guidance that effective technology use depends heavily on teacher readiness and on implementation strategies that prioritize clear pedagogical purpose and practical support ("ask why," "act at scale, for all," and related principles) rather than focusing primarily on tools themselves (World Bank, 2022). In settings like CCNHS, where connectivity and device limitations persist, professional development becomes even more central, as teachers need strategies for low-bandwidth or offline work, appropriate task design, and equitable participation mechanisms. OECD analysis further notes that variation in access and use of digital teaching and learning resources is significant and that digital transformation outcomes depend on the coherence of the broader ecosystem—resources, infrastructure, governance, and teacher digital competence (OECD, 2023). Accordingly, the study's identification of enabling and constraining factors provides a plausible explanation for why lesson delivery demonstrated stronger digital integration than enrichment or remediation, which typically requires additional time, individualized feedback cycles, and consistent access to devices beyond class periods.

From a curriculum and learning standpoint, the implications are particularly important for AP, as the subject targets competencies in contextual analysis, critical reasoning, and civic literacy. DepEd's AP curriculum guide explicitly frames learning outcomes to develop 21st-century competencies and produce a functionally literate Filipino capable of informed participation in society (Department of Education, 2019). Digital tools can support these outcomes not only by enhancing the presentation of content but also by enabling inquiry activities—such as analyzing primary and secondary sources, using interactive maps, building timelines, and engaging in structured discussions based on evidence. However, the study suggests that this fuller potential may be constrained by structural barriers (connectivity and device access) and operational barriers (time for preparation and familiarity with platforms). The UNESCO GEM Report highlights

that technology must be deployed on terms that advance equity, including ensuring that adoption does not intensify opportunity gaps between learners who have devices and stable connectivity and those who do not (UNESCO, 2023). Therefore, the study's emphasis on documenting real integration practices supports an evidence-based approach to designing interventions that are both pedagogically meaningful and feasible for the local context.

Overall, the findings reinforce a central implication: digital learning tool integration at CCNHS is present and functional, but its depth is constrained by resource limitations and teacher capacity, resulting in uneven integration across instructional processes. To advance from presentation-focused integration toward more student-centered learning experiences, the school-level action plan should prioritize: (a) capacity-building that targets AP-specific pedagogical applications of digital tools, (b) structured sharing of teacher-developed digital resources to reduce preparation burden, (c) low-tech and offline equivalents for inquiry and formative assessment tasks, and (d) monitoring indicators that assess not only frequency of tool use but also quality of integration (e.g., learner participation, evidence-based tasks, and feedback timeliness). This approach is consistent with UNESCO's and the World Bank's guidance that education technology should be guided by educational purpose, equity, and sustainability, with classroom-level evidence informing implementation decisions (UNESCO, 2023; World Bank, 2022).

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