



**INFORMATION AND COMMUNICATIONS TECHNOLOGY (ICT)
INTEGRATION AND EFFECTIVENESS IN TEACHING
ARALING PANLIPUNAN**

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ABSTRACT

This study examined the extent of Information and Communications Technology (ICT) integration and its effectiveness in teaching Araling Panlipunan among junior high school learners in private secondary schools. A descriptive–correlational research design was employed involving 222 Grade 9 and Grade 10 learners. Data were gathered and analyzed using mean, standard deviation, and Pearson’s product–moment correlation coefficient. The findings revealed that the overall extent of ICT integration in teaching Araling Panlipunan was moderate ($M = 3.28$), indicating that ICT is used in instruction but not yet fully maximized. Meanwhile, the overall level of effectiveness of ICT integration was high ($M = 4.03$), suggesting that learners perceive ICT as beneficial in enhancing their engagement, understanding of concepts, and access to learning materials. Furthermore, results showed a significant positive relationship between the extent of ICT integration and its effectiveness ($r = .153, p = .023$). Although the relationship was weak, it indicates that increased integration of ICT in instruction tends to improve the effectiveness of teaching Araling Panlipunan. The study concludes that ICT plays an important role in supporting the teaching and learning process in Araling Panlipunan.

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Keywords: *ICT integration, teaching effectiveness, Araling Panlipunan, junior high school learners, educational technology*

INTRODUCTION

The rapid advancement of Information and Communication Technology (ICT) in the 21st century has significantly influenced the way teaching and learning are carried out in schools. Traditional classroom practices have gradually evolved to incorporate digital tools that enhance interaction, access to information, and overall learning experiences. As emphasized in recent studies (Sasota et al., 2021), the integration of ICT has become an essential part of effective pedagogy, particularly in promoting active engagement between teachers and students.

Teachers play a crucial role in the successful integration of technology in education. Their level of technological competence—both in understanding and applying ICT tools—directly affects how these innovations are utilized in the classroom (Torrato, 2022). With the widespread availability of devices such as smartphones, laptops, and tablets, technology has become part of students' daily lives. This reality creates an opportunity for educators to design more relevant and meaningful learning experiences that align with students' current environment.

In the context of teaching Araling Panlipunan, technology offers various tools that can make lessons more engaging and interactive. Multimedia resources such as videos, digital maps, and online platforms can help present complex social concepts in a more

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understandable and relatable way. Moreover, both synchronous and asynchronous learning methods provide flexibility, allowing students to learn at their own pace and revisit lessons when necessary.

Despite these advantages, there remains a gap in understanding how effectively ICT is integrated into the teaching of Araling Panlipunan, particularly in terms of its impact on student learning outcomes. While technology is widely available, its actual use in classrooms may vary depending on teachers' skills, resources, and instructional strategies. This raises the need to examine not only the extent of ICT integration but also its effectiveness in enhancing the teaching and learning process

Thus, this study aimed to determine the level of ICT integration and its effectiveness in teaching Araling Panlipunan. The findings of this research are expected to provide insights that can help improve instructional practices and support the development of more engaged and holistic learners.

MATERIALS AND METHODS

Research Methodology

This chapter presented the research design, the respondents of the study, the data gathering instrument and procedure, the statistical tools used in the analysis and interpretation of the data.

Research Design

This study employed a descriptive-survey research design, which aimed to provide an accurate and systematic portrayal of the respondents' perceptions and experiences regarding

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Information and Communications Technology (ICT) integration and its effectiveness in teaching Araling Panlipunan. Descriptive research is appropriate for studies that seek to describe existing conditions and examine relationships among variables without any manipulation.

According to John W. Creswell and J. David Creswell (2021), descriptive research is used to gather quantifiable information about current conditions and to explore relationships among variables as they naturally occur. In the same vein, Earl Babbie (2020) emphasized that descriptive research systematically describes characteristics, attitudes, and behaviors of a population, making it useful in understanding trends and patterns within a given group.

Moreover, James H. McMillan and Sally Schumacher (2021) explained that descriptive research is particularly effective in identifying relationships or associations among variables, although it does not establish causation. Supporting this, Louis Cohen, Lawrence Manion, and Keith Morrison (2020) noted that descriptive and correlational approaches are often combined in educational research to examine the extent and direction of relationships among variables in real-world settings.

In this study, the descriptive-correlational approach was utilized to determine not only the level of ICT integration but also its relationship with perceived teaching effectiveness in Araling Panlipunan.

Furthermore, the study employed random sampling, which ensured that every member of the population had an equal chance of being selected. This method minimized selection bias and enhanced the representativeness of the sample. As explained by Alan Bryman (2021),

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random sampling strengthens the generalizability of findings by producing a sample that closely reflects the characteristics of the population. Consequently, this sampling technique allowed the researcher to draw more reliable conclusions about ICT integration and its effectiveness across different groups of learners.

Respondents of the Study

The respondents of this study were junior high school learners enrolled in Araling Panlipunan classes in three private schools in Iloilo City: Colegio del Sagrado Corazon de Jesus, Holy Rosary Academy, and PHINMA University Iloilo.

A sampling technique was employed to ensure proportional representation of students from different grade levels and schools. Stratified random sampling, as explained by Taherdoost (2020), was a probability sampling method in which the population was divided into homogeneous subgroups or strata, and random samples were drawn from each stratum. Similarly, Acharya, Prakash, Saxena, and Nigam (2020) emphasized that stratified sampling ensures that key subgroups within the population were adequately represented, thereby increasing the precision and generalizability of the findings. In addition, Singh and Masuku (2020) asserted that stratified random sampling enhanced the accuracy of estimates by reducing sampling error through structured representation across defined categories.

From Colegio del Sagrado Corazon de Jesus, there were 72 Grade 9 students and 63 Grade 10 students, totaling 135 learners. Using proportional allocation, 32 students from Grade 9 and 28 students from Grade 10 were selected, resulting in 60 respondents. At Holy Rosary Academy, there were 35 Grade 9 students and 32 Grade 10 students, totaling 67

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learners. Proportional allocation yielded 16 respondents from Grade 9 and 14 from Grade 10, totaling 30 respondents. For PHINMA University of Iloilo, there were 146 Grade 9 students and 153 Grade 10 students, totaling 299 learners. Using proportional allocation, 64 students from Grade 9 and 68 students from Grade 10 were selected, giving a total of 132 respondents from PHINMA UI. In total, the study will survey 222 junior high school learners. These data were summarized in Table 1.

Table 1. **Distribution of Respondents**

School	N	n	%
Private School A	135	60	27.03
Private School B	67	30	13.51
Private School C	299	132	59.46
Total	501	222	100

Data Gathering Instrument

A researcher-made questionnaire was used for gathering the data. The questionnaire was prepared and distributed to secure responses to specific questions.

The questionnaire was composed of three (3) parts: Part 1 contained the respondents' personal information such as sex, year level, gadget used, mother's educational attainment, and father's occupation. Part 2 determined the extent of ICT integration in Araling Panlipunan. Part 3 described the effectiveness of ICT in teaching Araling Panlipunan.

The extent of integration of ICT in teaching Araling Panlipunan consisted of 15 items, answerable by "always" (5), "frequently" (4), "sometimes" (3), "rarely" (2), "never" (1).

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Likewise, the level of effectiveness of ICT in teaching Araling Panlipunan consisted of 15 items, answerable by "strongly agree" (5), "agree" (4), "undecided" (3), "disagree" (2), "strongly disagree" (1)

The extent of integration of ICT in teaching Araling Panlipunan was based on the 5-point Likert Scale. Each response was given a score of 5, 4, 3, 2, 1 respectively. For the level of effectiveness of ICT in teaching Araling Panlipunan, items with a scale of means of 4.21–5.00 was interpreted as very great extent; 3.41–4.20 was interpreted great extent; 2.61–3.40 was interpreted as moderate extent; 1.81–2.60 was interpreted as low extent; and 1.00–1.80 was interpreted as very low extent.

For the extent of ICT integration in teaching Araling Panlipunan, the following scale of means was used to interpret results:

Scale of Means	Description	Interpretation
4.21 – 5.00	To a Very Great Extent	ICT is consistently and purposefully integrated in Araling Panlipunan instruction. Learners frequently used technology to support understanding, engagement, and learning tasks.
3.41 – 4.20	To a Great Extent	ICT is often integrated in instruction. Most learners are able to use technology to support their learning in Araling Panlipunan.
2.61 – 3.40	To a Moderate Extent	ICT is sometimes integrated. Learners occasionally use technology, but its use is not consistent across learning activities.
1.81 – 2.60	To a Low Extent	ICT integration is limited. Learners rarely use technology in Araling Panlipunan learning tasks.

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1.00 – 1.80 To a Very Low Extent ICT integration is minimal or absent. Technology is seldom or not used in the teaching and learning process.

Moreover, for the effectiveness of ICT in teaching Araling Panlipunan, the following scale of means were used to interpret results: Items with a scale of means of 4.21-5.00 was interpreted as very high; 3.41-4.20 was interpreted as high; 2.61-3.40 was interpreted as moderate; 1.81-2.60 was interpreted as low; 1.00-1.80 was interpreted as very low.

The scale of the means on the effectiveness of ICT in teaching Araling Panlipunan were as follows:

Scale of Means	Description	Interpretation
4.21 – 5.00	Very High	ICT integration is highly effective in improving learners' understanding, engagement, and critical thinking in Araling Panlipunan. It consistently enhances learning outcomes.
3.41 – 4.20	High	ICT integration is effective in supporting learning. Most learners show improved understanding and engagement in Araling Panlipunan.
2.61 – 3.40	Moderate	ICT integration has a fair level of effectiveness. Some learners benefit from its use, but improvements are not consistent.
1.81 – 2.60	Low	ICT integration has limited effectiveness. Few learners show improvement in understanding and engagement.
1.00 – 1.80	Very Low	ICT integration is not effective. It does not significantly contribute to learners' understanding or engagement in Araling Panlipunan.

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Validity of the Research Instrument

To ensure the validity of the questionnaire, expert validation was employed. Five (5) experts in the fields of educational technology, Araling Panlipunan instruction, and research methodology were invited to review the instrument. The validators assessed each item to determine if it was appropriate, needed revision, or was not appropriate for measuring the intended variables. This process ensured that the questionnaire items were relevant, clear, and aligned with the objectives of the study.

According to Creswell and Creswell (2021), validity refers to the extent to which an instrument measures what it is intended to measure and the appropriateness of inferences made from the collected data. Similarly, McCombes (2022) defined validity as the degree to which research instruments yielded meaningful and accurate results that reflect the constructs being investigated. By having five experts review the questionnaire, the researcher ensured that the items adequately captured the extent of ICT integration and the effectiveness of ICT in teaching Araling Panlipunan, providing confidence that the instrument measures what it is intended to measure.

Reliability of the Research Instrument

The questionnaire was pilot-tested among 30 Junior High School learners from Grades 9 and 10 selected from three different schools. These respondents were not included in the final sample of the study. The pilot testing was conducted to ensure the clarity, comprehensibility, and appropriateness of the instrument, as well as to identify and revise any ambiguous or unclear items.

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The reliability of the instrument was determined using Cronbach's alpha, a standard measure for assessing the internal consistency of survey instruments (Gliem and Gliem, 2020). The pilot test yielded a Cronbach's alpha coefficient of 0.881 for the items measuring the extent of ICT integration and its effectiveness in teaching Araling Panlipunan, indicating a high level of reliability. This result demonstrated that the questionnaire items consistently measured the intended constructs and produced dependable data for the main study.

Data Gathering Procedure

After the validity and reliability of the instrument were established, permission to conduct the study was secured from the office of the Graduate School. Prior to the conduct of the study, another permit was obtained from the Office of the Principal of PHINMA University of Iloilo, Holy Rosary Academy and Colegio del Sagrado Corazon de Jesus, allowing the researcher to conduct the study among the Junior High School learners. The researcher personally distributed the questionnaires to the respondents and checked whether all items were properly answered and completely filled out. After administering the questionnaire, the collected data were checked, tallied, processed, analyzed and interpreted using the Statistical Package for the Social Science (SPSS) software.

To determine the significant difference and relationship of integration and effectiveness of ICT in teaching Araling Panlipunan, the level of significance was set at 0.05 alpha.

Statistical Tools

For data analysis, the following statistical tools were used:

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Frequency Count. This was used to determine the distribution of the respondents as to variables.

Percentage was used to determine the proportion of the respondents in each category.

Mean was used to determine the extent of ICT integration and the effectiveness of Information and Communication Technology in teaching Araling Panlipunan when respondents were classified according to categories and variables.

For the inferential analysis, the following statistical tools were applied:

t-Test for Independent Samples was used to determine whether there was a significant difference in the extent of ICT integration and effectiveness when respondents were grouped according to variables with two categories, such as sex and year level.

One-Way Analysis of Variance (ANOVA) was used to determine whether there was a significant difference in the extent of ICT integration and its effectiveness when respondents were classified according to variables with more than two categories, such as gadget used, mother's educational attainment, and father's occupation.

Pearson's r was used to measure the significant relationship between the extent of ICT integration and the effectiveness of ICT integration in teaching Araling Panlipunan. This correlation analysis determined whether higher ICT integration was associated with higher levels of effectiveness in the subject.

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RESULTS AND DISCUSSIONS

This descriptive-correlational study was conducted to determine the Information and Communications Technology (ICT) integration and its effectiveness in teaching Araling Panlipunan among private secondary schools in Iloilo City during the School Year 2024–2025.

The study specifically aimed to describe the profile of the respondents; determine the extent of ICT integration and its level of effectiveness; and examine significant differences and relationships among these variables. The independent variables included the respondents' sex, age, year level, gadget used, mother's educational attainment, and father's occupation, while the dependent variables were the extent of ICT integration and its perceived effectiveness.

The respondents were 222 junior high school learners from three selected private schools in Iloilo City, chosen through stratified random sampling to ensure proportional representation. A researcher-made questionnaire was used for data collection, which underwent expert validation and pilot testing, yielding a high Cronbach's alpha coefficient of 0.881, indicating strong internal consistency.

Data were analyzed using frequency count, percentage, mean, independent samples t-test, One-Way Analysis of Variance (ANOVA), and Pearson's product-moment correlation coefficient.

The following were the salient findings of the study:

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1. On Respondent Profile: The majority of the respondents were female, 14 or 15 years old, and in Grade 10. The primary gadget used for learning was the cellphone, and most parents were college graduates or professionals.
2. On the Extent of ICT Integration: The overall extent of ICT integration in teaching Araling Panlipunan as assessed by the respondents was "To a Moderate Extent" (Mean = 3.28). When categorized, laptop users (Mean = 4.42) and 16-year-old students (Mean = 3.73) reported higher levels of integration compared to their counterparts.
3. On the Level of Effectiveness: The level of effectiveness of ICT integration was assessed as "Very High" (Overall Mean = 4.29). This indicates that learners strongly believed technology enhanced their understanding and engagement in the subject.
4. On Significant Differences in ICT Integration: The results of the t-test and ANOVA showed no significant differences in the extent of ICT integration when respondents were classified according to sex ($p = 0.103$), age ($p = 0.625$), or gadget used ($p = 0.137$). Thus, the null hypotheses were not rejected.
5. On Significant Differences in Effectiveness: There were no significant differences in the perceived effectiveness of ICT integration when classified according to sex ($p = 0.322$) or age ($p = 0.815$). Learners across all profile groups shared a similar high regard for the effectiveness of technology in learning Araling Panlipunan.
6. On the Relationship Between Integration and Effectiveness: A significant relationship was found between the extent of ICT integration and its effectiveness in teaching Araling Panlipunan. However, the relationship was described as weak, suggesting that

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while integration is important, other pedagogical factors also contribute to effectiveness.

Conclusion

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

1. While ICT is utilized in the classroom, its integration remains inconsistent or limited to certain activities, as evidenced by the "moderate extent" rating. This suggests that teachers may still be in the process of transitioning from traditional to fully digitalized instruction.
2. The "Very High" effectiveness rating concludes that learners are highly receptive to technology. They perceive it as a transformative tool that makes abstract historical and social concepts more relatable and easier to comprehend.
3. The lack of significant differences across profile variables concludes that ICT integration is being implemented equitably across different genders and grade levels within the participating private schools.
4. The weak but significant relationship between integration and effectiveness concludes that "more technology" does not automatically mean "better learning." The quality of how tools are used—aligned with the Teacher Technology Integration Self-Efficacy Theory—is more critical than the frequency of use.

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