International Education Forum, 2025, Volume 3, Issue 12
http://ojs.bbwpublisher.com/index.php/IEF
Online ISSN: 2981-8605
Print ISSN 3083-4902

The Impact of Digital Literacies on Reading Comprehension among Selected Grade 9 Students at GFLMNHS

Leah A. Embajadora[1,2]*, Fhamela M. Velila[2,3]*, Krystel Loi C. Agojo[2,4]*

[1]Governor Feliciano Leviste Memorial National High School, Philippines
[2]Rizal College of Taal, Batangas, Philippines
[3]Kalayaan Christian School, Philippines
[4]Sta. Teresa College, Philippines

***Corresponding authors:** *Leah A. Embajadora, leahembajadora@gmail.com; Fhamela M. Velila, fhamelavelila@gmail.com; Krystel Loi C. Agojo, loyskrystel@gmail.com*

Abstract: This study examined the impact of digital literacies on the reading comprehension of selected Grade 9 students at Governor Feliciano Leviste Memorial National High School (GFLMNHS). As digital technology becomes increasingly integrated into education, the ability to evaluate, navigate, and interpret online information has become essential for English language learners. The study assessed students' digital literacy across four areas: information literacy, media literacy, technology literacy, and communication and collaboration skills, and explored how these relate to reading comprehension components such as understanding main ideas, identifying details, making inferences, and evaluating texts. A descriptive correlational research design was used, employing a researcher-made questionnaire composed of Likert scale items. The weighted mean was utilized to determine students' levels of digital literacy and reading comprehension, while Pearson's product-moment correlation coefficient (Pearson r) measured the relationship between the variables. Results indicated that students generally possess a high level of digital literacy and reading comprehension. Furthermore, a significant positive relationship was found between the two variables, suggesting that students with stronger digital literacy skills are better able to comprehend English texts. Student responses also highlighted that digital platforms, such as e-books and online reading exercises, enhance engagement, motivation, and confidence in reading English materials. The study concludes that reinforcing digital literacy instruction can meaningfully improve ESL learners' reading comprehension and support their academic and future career needs. Recommendations include integrating digital reading strategies into the English curriculum and providing teachers with training on technology-enhanced instruction to maximize learning outcomes.

Keywords: Digital literacies; Reading comprehension; Students; Grade 9 learners; Online reading; Digital platforms; Information evaluation; Technology integration; English language learning; Student engagement

Online publication: December 31, 2025

1. Introduction of the research

Advancements in technology have significantly influenced how students learn, communicate, and read in the 21st century. Learning in the classroom today involves much more than just traditional literacy, which, by definition, is the ability to read and write. It now also includes the ability to maneuver, interpret, and create, and should be able to use digital tools efficiently. Digital literacy is more than just the ability to use technology. It encompasses the ability to use online tools to access information, determine the relevancy and credibility, synthesize knowledge from various sources, and create valuable and useful digital products. Using information to create something meaningful is called digital literacy. It also includes an understanding of online etiquette, the ability to communicate with others as a responsible digital citizen, and the productive use of technology to resolve an issue. Among students, digital literacy is very important when it comes to ESL students since they need to learn the language and digital literacy at the same time. Digital literacy that ESL students need to learn is the ability to manage complex digital information, the ability to communicate and collaborate with others online, and the ability to function in a world with an abundance of information.

Recent studies focus on how digital literacy increases students' reading comprehension. According to Rochanaphapayon, students who engage with digital texts (e.g., e-books and online articles, and educational tools) have better comprehension and critical thinking skills than students who only work with physical texts [1]. Research by Belingga and others found a similar positive association, suggesting that digital literacy facilitates digital reading, independent learning, and self-regulation with internal motivation [2]. Digital literacy also increases cognition that reads on a higher level by way of essential skills that evaluate, analyze, and draw an inference. Digital reading requires students to cognitively engage with videos, texts, and infographics to integrate and use higher levels of comprehension. This not only improves comprehension and retention but also benefits reading achievement in all other subjects. Digital reading materials across all subjects offer a self-regulated framework that enhances motivation, strengthens reading comprehension, promotes higher-level reading skills, and fosters digital literacy.

At GFLMNHS, students often use technologies, like smartphones, tablets, and computers, to finish assignments, research, and communicate with teachers and classmates. However, even among students with access to technology, some are still having difficulties interpreting, synthesizing, and analyzing digital texts. Some problems are failing to distinguish between credible and unreliable sources, comprehension of the texts, and digital interactions. This suggests the need to study the digital literacy and reading challenges of students. The challenges of being digital literate while also reading in a second language make the study of the relationship between digital literacy and comprehension of reading even more important. This relationship will help answer the need to develop instructional techniques and improve the use of technology in the classroom to support students as they become proficient, autonomous, and analytical readers in print and digital texts. This study can also help educators develop and enhance students' digital reading literacy and create an environment in which they can develop the competencies to learn and participate in a digitally complex world.

For these reasons, this study aims to determine the impact of digital literacies on reading comprehension among selected Grade 9 students at GFLMNHS. This is timely and relevant to the study of language and literature, as it bridges traditional reading practices with digital learning. It also reflects the realities of local classrooms adapting to new technologies. Beyond academics, the study promotes digital inclusion, responsible online behavior, and the development of critical literacy, skills essential for success in the modern world.

2. Literature review

In today's digital age, technology has become an inseparable part of education, transforming how students read, learn, and communicate. Classrooms now go beyond printed books, with students often reading on screens, exploring websites, or using online learning applications. This shift has made digital literacy the ability to locate, evaluate, and use digital information an essential skill in modern education. Beatrix & Katemba claimed that nowadays, digital technology provides numerous creative venues for EFL students to get more English information and comprehend all English skills, particularly reading [3]. According to Julie, the term digital reading refers to the integration of text into diverse multimedia contexts found in electronic media [4]. One could argue that not all on-screen text is digital. Texts must fulfill two requirements in order to be considered digital: First, the incorporation of reading modalities related to location and gesture, as well as verbal, transcribed, graphic, touch-screen, and several other ways of expression. Second, use a variety of connecting features, such as hyperlinks, to connect the content. According to Oh, Krish, and Hamat, digital texts on digital devices have impressively offered a huge variety of material to read, which not only captivated students with varied topics but also brought a reading practice that can enhance their reading skills [5]. Students are now expected to combine their reading skills with technical and critical thinking abilities to fully understand information presented through digital platforms.

In ESL learning, reading comprehension remains a vital foundation for academic success. However, digital environments such as e-books, websites, and interactive reading platforms present both opportunities and challenges. As Ng points out, digital literacy has become an essential 21st-century skill that supports independent learning, problem-solving, and communication in digital environments [6]. This underscores why developing students' digital competence is vital in today's classrooms. And according to Coiro, online reading requires students to evaluate, synthesize, and critically judge digital information to achieve comprehension [7]. Similarly, Rizqiana emphasized that students with strong "new literacies" can self-regulate their learning and engage more actively with digital materials [8]. Added to these, according to the OECD, 21st-century readers must integrate both traditional and digital literacy skills to successfully navigate, evaluate, and create information in online spaces [9]. Supporting this idea, Rochanaphapayon found that students who are digitally literate can better comprehend and analyze texts presented online because they know how to filter credible information and manage multimedia content effectively [1]. Leu et al. further elaborate that online reading requires learners to apply a range of new literacies locating, evaluating, synthesizing, and communicating information across multiple digital texts, and also describe this as part of the New Literacies Theory, where digital literacy plays a central role in developing new reading strategies for online contexts [10]. These perspectives highlight that digital literacy extends beyond basic technical ability; it also encompasses the cognitive and evaluative skills needed to interpret meaning in multimodal texts.

Furthermore, UNESCO emphasizes digital literacy as a core component of inclusive education in the 21st century, underscoring the need for schools to integrate technology meaningfully into language learning [11]. Despite these advantages, research has shown mixed results. Belingga et al. found that while digital literacy supports language learning, it does not automatically guarantee better reading comprehension [2]. These findings suggest the need for further investigation into how digital literacy specifically influences students' reading skills, particularly in local ESL classrooms. This study, therefore, aims to explore this relationship among selected Grade 9 students at Governor Feliciano Leviste Memorial National High School (GFLMNHS), providing insights that can guide teachers in creating more effective, technology-integrated reading strategies.

2.1. Research questions

This study aims to determine the impact of digital literacies on reading comprehension among selected Grade 9 students at GFLMNHS. Specifically, it seeks to answer the following questions:

(1) What is the level of digital literacy of the selected Grade 9 students at GFLMNHS in terms of:

Information literacy

Media literacy

Technology literacy

Communication and collaboration skills

(2) What is the level of reading comprehension of the selected Grade 9 students in terms of:

understanding main ideas

identifying details

making inferences

evaluating texts

(3) What is the impact of digital literacies on reading comprehension among students?

(4) Based on the results of the study, what evidence-based action plan may be proposed to enhance the digital literacies and reading comprehension of the selected Grade 9 students at GFLMNHS?

2.2. Research objectives

The main objective of this study is to determine the impact of digital literacies on the reading comprehension of selected Grade 9 students at GFLMNHS. Specifically, this study aims to:

(1) Determine the level of digital literacies of the selected Grade 9 students in terms of:

Information Literacy

Media Literacy

Technology Literacy

Communication and Collaboration Skills

(2) Determine the level of reading comprehension of the selected Grade 9 students in terms of:

Understanding Main Ideas

Identifying Details

Making Inferences

Evaluating Texts

(3) Determine the perceived relationship between students' digital literacies and their reading comprehension.

(4) Examine whether digital literacies significantly influence or impact the reading comprehension of selected Grade 9 students.

2.3. Scope and limitation of the study

The study investigates how digital literacies affect reading comprehension among selected Grade 9 students at GFLMNHS. It focuses on their ability to use and understand digital texts, using school-based tools and assessments over one academic quarter. The research is limited by the number of participants, differences in access to technology, varying English proficiency levels, and external factors like motivation and home support. It also relies on specific tests that may not capture all aspects of digital literacy.

3. Research methodology

This section describes the methods and procedures utilized in conducting the study, including the research design, the selection of participants, the instrument used, and the process of data collection and analysis.

3.1. Sampling

3.1.1. Participants of the study

The participants in this study consisted of 25 carefully selected Grade 9 students from GFLMNHS during the School Year 2025–2026. These individuals were chosen based on specific criteria, primarily their current enrollment in Grade 9, ensuring the study's relevance to this particular academic level. Additionally, selection took into consideration their active exposure to and engagement with various digital tools and platforms utilized for academic purposes. This criterion was essential to guarantee that participants had a foundational familiarity with the digital environments relevant to the study's focus on digital literacies and reading comprehension. By targeting students with this background, the study aimed to accurately capture insights into how digital proficiency intersects with academic reading skills within the context of their educational experience.

3.1.2. Sampling technique

The study employed purposive sampling, a non-probability sampling technique in which participants are intentionally selected based on specific characteristics relevant to the research objectives. In this case, Grade 9 students were chosen because they possess the particular traits and context necessary to assess both digital literacies and reading comprehension effectively. This method allows the researcher to focus on individuals most capable of providing meaningful data aligned with the study's goals, ensuring that the sample is relevant and appropriate for examining the relationship between digital literacy skills and reading comprehension. Purposive sampling thus facilitates a targeted and efficient approach to sample selection, maximizing the potential to yield valuable insights.

3.1.3. Sample size

A total of 25 survey instruments were both distributed to and retrieved from the participants. While this represents the overall sample size, a slight discrepancy was observed in the number of completed responses received for the two primary instruments used in the study. This minor variation may be attributed to factors such as participant availability, item non-response, or varying levels of engagement with each instrument. Despite this, the response rate remained high, ensuring sufficient data was collected to support the study's analysis and conclusions.

3.2. Data collection

The primary instrument used was a Self-Assessment Survey Questionnaire composed of two main sections:

Level of Digital Literacies: Divided into four sub-sections: Information Literacy, Media Literacy, Technology Literacy, and Communication and Collaboration Skills.

Level of Reading Comprehension: Divided into four sub-sections: Understanding Main Ideas, Identifying Details, Making Inferences, and Evaluating Texts.

Impact of Digital Literacies on Reading Comprehension (a separate short section). T

The instrument employed a 4-point Likert Scale for measurement: 4 - Strongly Agree (SA); 3 - Agree (A); 2 - Disagree (D); 1 - Strongly Disagree (SD).

3.3. Data gathering procedure

The researchers followed the subsequent steps to ensure proper data collection:

Approval and Clearance: Official approval was secured from the school principal or the designated authority of GFLMNHS to conduct the survey.

Informed Consent: The selected Grade 9 students were informed about the study's objectives, and their voluntary and confidential participation was ensured through the securing of their consent.

Survey Administration: The questionnaire was administered to the participants. The researchers ensured clear instructions were given for each section of the dual-topic survey.

Retrieval and Encoding: The completed survey forms were collected. The responses were accurately tallied and organized into a data matrix for subsequent statistical treatment.

Data Analysis: The tallied data were then subjected to statistical procedures.

4. Data analysis

Descriptive Statistics were used to analyze the collected data and determine the students' self-assessed levels.

Frequency Distribution: Used to determine the count of respondents for each response option (SA, A, D, SD).

Weighted Mean (WM): This was the primary statistical tool used to determine the average self-assessment score for each item and each main category.

The formula used was:

$$WM = \frac{\sum(f \cdot w)}{N}$$

Verbal Interpretation: The computed Weighted Mean was interpreted using the established Verbal Interpretation Guide (Strongly Agree, Agree, Disagree) to describe the overall findings.

5. Discussion of results and recommendations

This section integrates the key findings from the statistical analysis of both digital literacies and reading comprehension, synthesizing the main conclusions and proposing targeted recommendations for intervention.

5.1. Key findings and discussion

The study revealed a high self-perception of competency in both Digital Literacies (Overall WM = 3.16, Agree) and Reading Comprehension (Overall WM = 3.04, Strongly Agree) among the selected Grade 9 students. However, a detailed analysis exposed a critical skills gap that warrants immediate attention:

Critical Weakness in Technical Skills: The most significant deficit was identified in Technology Literacy, specifically the item "I can troubleshoot simple technology problems", which scored the lowest overall (WM = 2.24, Disagree). This finding indicates that while students are confident in using digital tools for school, they lack the foundational, practical problem-solving skills necessary for independent device maintenance or resolving basic technical issues.

This finding is consistent with multiple empirical studies. Research shows that technical troubleshooting

is a distinct and essential component of digital competence, and many students demonstrate weaknesses in this area compared to their confidence in everyday tool use. Blanc et al. found that problem-solving and troubleshooting form a measurable dimension of digital competence, and students often display lower performance on this skill despite regular digital exposure and confidence in usage [12]. Similarly, the European DigComp framework identifies "solving technical problems" as a core competence, reinforcing that troubleshooting is a necessary digital literacy subdomain and essential for effective use of digital technologies in learning [13]. Supporting this trend in the Philippine context, Caliba documented that secondary learners frequently possess ICT operational skills but lack practical technical skills required to maintain or troubleshoot school devices, indicating a gap between basic tool use and deeper technical competence [14].

In contrast, Bueno-Baquero et al. showed that targeted instructional programs can significantly improve students' digital problem-solving skills, suggesting that weaknesses in troubleshooting are not permanent and can be addressed through structured interventions [15].

Nuance in Digital Evaluation: While Reading Comprehension scores were high, the students showed slightly lower confidence in "I judge if the information in a text is reliable" (WM = 2.92, Agree). This suggests that their traditional reading skills are strong, but the ability to critically assess source credibility and bias, which is a vital skill in the digital age, needs strengthening. Supporting this, Lucaser & Acedera found that Filipino students' information literacy and critical thinking skills strongly influence their ability to evaluate online sources, demonstrating that higher-order thinking is essential for accurate credibility judgment [16]. Similarly, Fajardo reported that many Filipino students operate at only "beginning" to "emerging" levels when evaluating authorship, facts, and bias in digital media, indicating that limited evaluation skills are common among learners [17].

In contrast, Kiili et al. observed that even when students correctly judge source credibility, their justifications for these judgments are often weak, highlighting a gap in deeper reasoning despite apparent accuracy [18]. Likewise, Agsaluna et al. showed that students' confidence in evaluating online information can be inconsistent, and targeted interventions are required to strengthen both skill and self-efficacy [19].

Positive Interconnection: The students Strongly Agree (WM = 3.15) that their digital literacy skills (like identifying bias and evaluating sources) directly enhance their reading comprehension of online materials. This confirms that these two skills are interdependent and should be addressed through integrated instruction. Supporting this, Satria et al. reported that secondary students with higher digital literacy, particularly in information evaluation and navigation, demonstrated significantly better reading comprehension when participating in blended-learning activities [20]. Similarly, Sari et al. found a significant positive correlation between digital literacy and reading comprehension among EFL undergraduates, emphasizing that students who could effectively access, evaluate, and interpret online information performed better in comprehension tasks [21]. These studies collectively suggest that digital literacy strengthens students' reading comprehension by enabling them to critically interact with digital texts.

In contrast, Irwanto et al. observed that while digital texts can enhance reading comprehension, the benefits are highly dependent on how the texts are used. Their study indicated that students who simply interacted with digital texts without structured guidance or integrated critical evaluation did not show improved comprehension, implying that digital literacy alone may not automatically translate into higher reading performance [22]. This highlights the importance of purposeful integration of digital literacy skills into instructional practices to fully realize their potential in enhancing comprehension.

5.2. Conclusion

The study concludes that while the 25 selected Grade 9 students from Governor Feliciano Leviste Memorial National High School in Lemery, Batangas, demonstrated a high level of overall self-efficacy in using digital tools, there remains a significant and noteworthy gap in their Technology Troubleshooting skills. These findings highlight that, although students are confident in performing routine digital tasks, they often struggle when faced with unexpected technical challenges or problems that require independent, practical problem-solving. Such a deficit in troubleshooting not only limits their autonomy in navigating digital learning environments but also has the potential to hinder their overall engagement and effectiveness in technology-mediated learning activities.

Beyond technical skills, the study also revealed critical areas in need of further development, particularly students' understanding of academic honesty and their ability to critically evaluate online information. While many students could access and comprehend digital texts, their capacity to discern credibility, detect bias, and evaluate the accuracy of information remained uneven. These skills are increasingly vital in the modern learning landscape, where students must navigate vast amounts of online content and make informed judgments about the reliability of the sources they encounter. Without targeted support, students may continue to encounter challenges that compromise both the integrity and quality of their learning experiences.

Addressing these gaps through deliberate, structured, and contextually relevant instruction is essential. By incorporating targeted interventions that focus on troubleshooting, critical evaluation, and digital responsibility, educators can help students develop a more holistic set of digital literacy competencies. Strengthening these skills is not merely about enhancing students' technical abilities; it is also about fostering critical thinking, independence, and ethical engagement with digital resources. Ultimately, equipping students with robust digital literacy skills will not only improve their reading comprehension and academic performance but will also better prepare them for future academic endeavors and career demands in an increasingly digital and interconnected world.

5.3. Recommendation

Based on the critical need identified, the following recommendations are proposed for the action research intervention and future curriculum enhancement:

Targeted Troubleshooting Intervention (Primary Focus): The action research must be designed to directly address the WM=2.24 score in troubleshooting. The intervention should be a hands-on, practical module (e.g., a "Tech-Fix Toolkit") aimed at teaching students how to independently solve common device, software, and connectivity problems.

Integrated Critical Literacy Instruction: Reading and subject teachers must integrate the teaching of critical evaluation (source reliability, bias checking) into online reading and research assignments. This will address the lower score in judging text reliability and leverage the students' recognition of the link between digital skills and comprehension.

Reinforce Academic Honesty: Regular reminders and practical training on proper citation and plagiarism avoidance should be implemented to ensure ethical use of digital information.

Advocacy for Institutionalization: The school administration is strongly urged to adopt the successful intervention modules to ensure the sustainable development of students' practical digital literacy skills.

6. Dissemination and advocacy plans

The dissemination and advocacy plan outlines the strategies and activities necessary to communicate the research findings, secure support, and facilitate the institutionalization of the recommended interventions, particularly the improvement of Technology Troubleshooting Skills and Critical Digital Evaluation among the Grade 9 students of GFLMNHS (**Table 1**).

Table 1. The dissemination and advocacy plan

Target Stakeholder	Dissemination Method	Key Message/Advocacy Goal	Time Frame	Responsible Party
School Administration (Principal & Heads)	Formal Presentation & Policy Brief Submission	INSTITUTIONALIZATION: Secure approval for the integration of the Troubleshooting Module into the curriculum (e.g., during ICT or Homeroom periods) and allocation of resources (e.g., dedicated time slots).	1 Month Post-Intervention	Researcher, Head Teacher
Teachers (English/ Filipino, ICT, Science)	Integrated Training Workshop (INSET)	INTEGRATION: Train teachers on how to embed practical troubleshooting lessons and critical digital evaluation (checking source reliability, identifying bias) into their respective subjects.	2 Months Post-Intervention	Researcher, Master Teachers
Students (Grade 9)	Interactive Feedback Session & Workshop Launch	EMPOWERMENT: Present the finding on the low troubleshooting score to foster self-awareness and immediately launch the first session of the new, hands-on intervention module.	Immediately Post-Analysis	Researcher, Class Advisers
Parents and Guardians	PTA Meeting Presentation & Digital Communication	SUPPORT & AWARENESS: Educate parents on the need for students to develop self-reliance in technical problem-solving and how to monitor online sources used for homework.	Biannually (During scheduled PTA meetings)	Researcher, PTA Officers
Local School Division (SDRC)	Action Research Conference Presentation	SCALABILITY: Disseminate the successful model of the integrated intervention(Troubleshooting + Critical Evaluation) to advocate for its adoption in other schools facing similar digital literacy gaps.	As Scheduled by the Division Office	Researcher

7. Financial report

The financial report is shown in **Table 2**.

Table 2. Financial report

Item	COST (₱)	Description
Printing of questionnaires	150	Test papers and surveys
Bond papers	120	For scoring guides and answer sheets
Internet load	200	For accessing online reading materials
Miscellaneous	100	Other research-related needs
Total	(₱) 570	

Acknowledgement

The researchers extend their sincere gratitude to Dr. Ma. Leticia Jose Cabaña-Basilan for her unwavering support, expert guidance, and insightful mentorship throughout the conduct of this study. Her encouragement and academic leadership were instrumental in shaping the direction and completion of this research.

Special appreciation is also given to the Grade 9 students of GFLMNHS for their active participation and meaningful contributions. Their engagement and honest responses provided valuable data that enriched the findings and relevance of this study. The cooperation of the school administration and faculty is likewise acknowledged for facilitating the research process with openness and support.

This study would not have been possible without the collective efforts of all those who shared their time, expertise, and trust in the pursuit of educational advancement through digital literacies.

Disclosure statement

The authors declare no conflict of interest.

References

[1] Rochanaphapayon S, 2022, Digital Literacy and Reading Comprehension among EFL Students: A Correlational Study. Journal of Language and Linguistic Studies, 18(3): 512–526.

[2] Belingga R, Sibarani J, Simatupang H, 2024, The Influence of Digital Literacy on Students' Reading Comprehension Achievement. Indonesian Journal of English Language Teaching and Applied Linguistics, 9(1): 55–68.

[3] Beatrix A, Katemba CV, 2023, EFL Students' Perception on Webtoon: Reading Activity. PANYONARA: Journal of English Education, 5(1): 17–29.

[4] Julie C, 2021, Toward a Multifaceted Heuristic of Digital Reading to Inform Assessment, Research, Practice, and Policy. Reading Research Quarterly, 56(1): 9–31.

[5] Chen M, Pramela K, Afendi H, 2022, Reading on Smartphones: Students' Habits and Implications for Reading Skills. Call-Ej, 23(1): 259–277.

[6] Ng W, 2020, Digital Literacy and Learning in the 21st Century. Educational Technology Research and Development, 68(5): 2529–2547.

[7] Coiro J, 2020, Online Reading Comprehension: Exploring the New Literacies of the Internet. The Reading Teacher, 73(5): 667–675.

[8] Rizqiana A, 2021, Developing New Literacies in Digital Reading: ESL Students' Self-regulated Learning and Comprehension. Asian EFL Journal, 28(5): 230–247.

[9] OECD, 2021, 21st Century Readers: Developing Literacy Skills in a Digital World. OECD Publishing, Paris.

[10] Leu DJ, Forzani E, Timbrell N, 2022, New Literacies and Reading Comprehension in the Digital Age: Rethinking what it Means to Read. Reading Research Quarterly, 57(3): 421–440.

[11] UNESCO, 2023, Global Framework on Digital Literacy for Educators and Learners. UNESCO, Paris. https://unesdoc.unesco.org/ark:/48223/pf0000385279

[12] Blanc S, Conchado A, Benlloch-Dualde JV, et al., 2025, Digital Competence Development in Schools: A Study on The Association of Problem-solving with Autonomy and Digital Attitudes. International Journal of STEM Education, 12(13): 1–17.

[13] European Commission, 2017, DigComp 2.2: The Digital Competence Framework for Citizens. Publications Office of the European Union, Luxembourg.

[14] Caliba AC, 2024, ICT Literacy and Operational Skills among Secondary Learners in the Philippines. Philippine Journal of Educational Technology, 12(1): 45–58.

[15] Bueno BA, Del OMJ, González CJA, et al., 2025, Boosting Digital Competence: Impact of an Educational Program on Primary-to-Secondary Transitioning Students. TechTrends.

[16] Lucaser AMR, Acedera AP, 2025, Information Literacy Skills and Critical Thinking Strategies: Key Factors of Online Source Credibility Evaluation. International Journal of Research in Academic World, 6(7): 10.

[17] Fajardo MF, 2023, Filipino Students' Competency in Evaluating Digital Media Content Credibility: "Beginning" to "Emerging" Levels. Journal of Media Literacy Education, 15(2): 58–70.

[18] Kiili C, Hämäläinen E, Räikkönen E, et al., 2022, Adolescents' Credibility Justifications when Evaluating Online Texts. Education and Information Technologies, 2022(27): 7421–7450.

[19] Agsaluna MAE, Regis CM, Cayabyab DL, et al., 2025, From Headlines to Truth: The Impact of Media Literacy Level in Identifying Factual and False Information. International Journal of Advanced Multidisciplinary Research and Studies, 5(2): 1442–1448.

[20] Satria W, Iskandar I, Dewanti R, 2022, The Effect of Blended Learning and Digital Literacy on Students' Reading Comprehension. Proc SciTech.

[21] Sari TR, Yana D, Edi W, 2024, A Correlation between Digital Literacy and EFL Students' Reading Comprehension at Higher Education. Lectura: Jurnal Pendidikan, 15(2): 315–326.

[22] Irwanto WR, Darmawan WA, 2025, The Influence of Digital Texts on Eighth Graders' Reading Comprehension. Acuity: Journal of English Language Pedagogy, Literature and Culture. 10(3): 47–60.