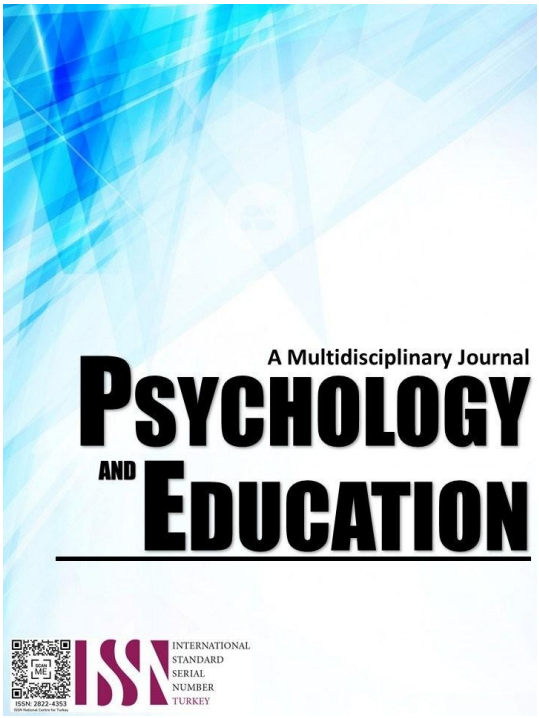
DIGITAL LITERACY AND DIGITAL COMPETENCE AMONG SENIOR HIGH SCHOOL TEACHERS



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Research Article

Digital Literacy and Digital Competence Among Senior High School Teachers

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Abstract

The main objective of the study was to describe the level of digital literacy in terms of understanding digital practices, finding information, using information, and creating information; find out the level of teachers' digital competence in terms of professional engagement, digital resources, teaching and learning, assessment, empowering learners, and facilitating learners and correlate the significant relationship between the teacher's digital literacy and digital competence. The respondents of the study were the 120 senior high school teachers in Valencia National High School, Division of Valencia City, during the school year 2024-2025. Random sampling was employed to determine the teachers at Valencia National High School. The instrument of the study was adapted from the Self-Assessment Tool of the European Digital Competence Framework for Educators (DigComEdu) of Dr. Christine Redecker. Descriptive analysis measures the level of digital literacy in terms of understanding digital practices, finding information, using information, and creating information, which strongly suggests a very high level of digital literacy among the teachers. It is essential to note the level of teachers' digital competence in terms of professional engagement, digital resources, teaching and learning, assessment, empowering learners, and facilitating learners, which strongly agrees, that is, very high level on the level of digital competence among the teachers. Correlation results demonstrate a significant positive relationship between teachers' digital literacy and digital competence, confirming that improved digital literacy generally leads to enhanced digital competence. The variables include understanding digital practices, finding information, and creating information.

Keywords: *digital literacy, digital competence, and senior high school teachers*

Introduction

In the educational setting in the 21st century, educators' knowledge of digital technology and their digital competency are increasingly recognized as critical factors influencing effective teaching and learning. Many educators must navigate a variety of electronic tools and offerings intended to engage today's students as technology continues to transform the educational landscape. However, there are still a lot of issues and gaps in instructors' readiness to use these technologies in the classroom.

Teachers' differing degrees of digital literacy are a significant problem that might make it difficult for them to incorporate technology into their lesson plans. The rapid pace of technology advancement has left many educators feeling overpowered, which makes them unsure of how to use digital tools efficiently. This discrepancy affects learning outcomes and student involvement in addition to the quality of education. Additionally, there is a clear shortage of training programs that focus on enhancing educators' proficiency with digital tools, which leaves educators without continuous assistance when they want to become more proficient in this area.

Additionally, Teachers must take a more individualized and flexible approach to instruction in considering the varied backgrounds and learning styles of students in the twenty-first century. However, it's possible that many educators lack the skills needed to design inclusive online learning environments that serve all students. A major obstacle to educating students for success in a technologically advanced environment is this knowledge and practice divide.

Research indicates that while there is a growing emphasis on digital literacy in the Philippine educational system, many teachers still face challenges in integrating technology into their teaching. A study by Khamis and Othman (2020) highlights that many educators lack sufficient training and support to use digital tools in their classrooms effectively. This disparity may result in inconsistent teaching methods and impede students' acquisition of digital skills.

The virtual competence of educators is directly related to linked as an student engagement and the learning outcomes. According to Alonzo and Rojas (2021), Teachers who are adept with digital tools are better able in order to create dynamic and captivating settings for learning that appeal to scholars in the twenty-first century. In the Philippines, where the educational system is rapidly implementing blended learning models that combine traditional and digital approaches, this is particularly important.

In order to improve teachers' digital skills, the literature emphasizes the necessity of continual professional development. A study by Besa (2022) found that many teachers expressed a desire for more comprehensive training programs focused on digital literacy and competence. Such programs should be designed to provide practical, hands-on experiences that align with the realities of teaching in a digital age.

The digital gap continues to be a major problem in the Philippines, where access to technology can vary widely between urban and rural areas. As highlighted by De Dios (2021), this disparity can affect the capacity of educators to successfully combine technology into their teaching practices. Ensuring equitable fostering of digital literacy and competency in educators and their students requires

access to digital tools and resources.

By identifying this research endeavors to illuminate these issues and deficiencies. current state of digital literacy and competence among teachers, and to highlight the implications for educational practice. Understanding these issues is essential for developing targeted interventions that empower educators to effectively satisfy students' requirements in the twenty-first century and to promote a more dynamic and engaging learning experience in the Department of Education's public elementary schools.

Research Question

This research sought in order to assess the digital literacy and digital proficiency between Higher Education Senior Teachers of The National High School in Valencia, Valencia City Division, 2024–2025 academic year. It sought to address the following questions in particular. In light of the previously With the following problems in mind, the null hypothesis was investigated at significance levels of 0.05 and 0.01:

1. To what extent do educators possess digital literacy in terms of comprehending digital activities, locating, utilizing, and producing information? What is How well-versed are teachers in digital material, instructions, and Education, evaluation, professional involvement, empowering pupils, and assisting students are teachers?
2. Does the instructor's proficiency and knowledge of digital technology have a substantial correlation?
3. How do the digital literacy and digital competencies of the teacher relate to each other?

Methodology

Research Design

This study employed a descriptive-correlational research design. The data gathered were subjected to quantitative analysis. Digital literacy was defined as the ability to understand digital practices and to locate, utilize, and generate information. Teachers' digital competence was conceptualized in terms of digital resources, teaching and learning processes, assessment practices, professional engagement, and the facilitation and support of learners. Using the descriptive approach, a significant relationship between teachers' digital literacy and digital competence was examined and established.

Respondents

The study utilized a simple random sampling technique. This statistical method enabled the researcher to select a representative sample from a larger population based on the principle of randomness. Through this approach, each member of the population had an equal probability of selection, thereby ensuring impartiality and representativeness. The characteristics of the selected sample closely reflected those of the entire population, allowing for valid generalizations. This method was deemed appropriate given the size of the population. Although simple random sampling was straightforward and easy to implement, it was not always feasible, particularly when dealing with large or geographically dispersed populations. Nevertheless, when properly executed, it yielded representative samples from which reliable conclusions about the broader population were drawn.

Instrument

To assess the respondents' digital competence and digital literacy, standardized instruments were employed, including the Digital Competence of Educators (DigCompEdu) framework, the Open University's Checklist for Digital Literacy and Being Digital, and the European Digital Competence Framework for Educators' self-assessment tool. These instruments were utilized to measure various dimensions of digital literacy and competence.

The primary objective of these tools was to support educators in adapting to the demands of teaching in the digital age. The DigCompEdu framework provided a comprehensive conceptual model that defined what it meant for educators to be digitally competent. The self-assessment instrument allowed educators at different proficiency levels to reflect on their use of digital technologies in fostering effective and innovative learning environments. The framework was developed by Dr. Christine Redecker, who also led its implementation and validation.

Procedure

Prior to data collection, formal permission was obtained from the Schools Division Superintendent. Subsequently, school administrators and district supervisors were coordinated with to facilitate the administration of the survey questionnaire. The researcher personally administered and retrieved the questionnaires from the participating schools to ensure a high response rate and data accuracy.

Upon collection, the accomplished questionnaires were immediately reviewed, validated, organized, tabulated, and analyzed. These procedures ensured the accuracy, completeness, and reliability of the data used in the study.

Data Analysis

To address the specific research problems, appropriate statistical techniques were employed.

For Problems 1 and 2, descriptive statistics, including mean, standard deviation, and percentage distributions, were used to assess

teachers' digital literacy and their competence in teaching 21st-century learners.

For Problem 3, Pearson Product-Moment Correlation (Pearson r) was utilized to determine the relationship between teachers' digital literacy and digital competence. This statistical method enabled the examination of the strength and direction of the association between the identified variables.

Ethical Considerations

Ethical considerations were strictly observed to safeguard the privacy and confidentiality of the educators who participated in the study. Ensuring anonymity and data protection encouraged respondents to provide honest and accurate responses.

Informed consent was obtained from all participants after they were fully informed about the objectives of the study, the data collection procedures, and the intended use of the data. Participants were assured of their right to withdraw from the study at any point without any consequences.

Data de-identification was implemented, wherein all personally identifiable information, such as names, school affiliations, and contact details, were removed or anonymized. Pseudonyms were assigned where necessary to maintain confidentiality.

Furthermore, all collected data were securely stored, with access restricted to authorized individuals only. Appropriate measures, including data encryption and secure storage systems, were employed to prevent unauthorized access or disclosure.

Finally, ethical clearance was obtained from the appropriate institutional review board or ethics committee to ensure that the research procedures and data management practices complied with established ethical standards.

Results and Discussion

The one that exhibits, analysis, as well as an evaluation of the information obtained are contained in this section and comes from the responders. The order in which particular Issues in the problem statement are presented determines the presentation's order.

It includes defining the degree of digital literacy in terms of comprehending digital practices, locating, utilizing, and generating information; assessing teachers' level of digital competency in terms of instruction, evaluation, digital resources, professional engagement, learners' empowerment and facilitation, and proving the important connection between the two.

Understanding digital behaviors, accessing, using, and generating information are all included in the digital literacy levels shown in Tables 1, 2, 3, and 4. The degree of teachers' digital competency in digital resources, teaching and learning, and professional involvement areas, evaluation, enabling students, and supporting students is shown in Tables 5, 6, 7, 8, 9, and 10. The test indicating a significant correlation between the teacher's digital competency and digital literacy is found in Table 11. The tables comprise the indicators, mean, and associated explanation. The table also displays the variables together with the r- and p-values.

Table 1 presents the Scale of Teachers' utilization of digital literacy within the framework of comprehending digital behaviors.

Table 1. *The level of expertise possessed by educators of digital in the context of comprehending digital behaviors*.

Indicator	*A Mean*	*The SD*	*Explanation*
Involves producing and sharing content across digital platforms.	4.49	zero.502	Elevated Level
Technology proficiency, but also the ability to think critically in order to assess information, comprehend digital privacy, and successfully traverse online environments.	4.47	0.501	Exceptionally Level
locating and documenting information on the internet using websites and online tools.	4.43	0.496	Elevated Level
You can anticipate finding folks in the following categories on the internet.	4.41	0.494	Highest Level
deciding which tool to use, locate, or produce information.	4.41	0.494	Extremely High Degree
determining the information that can be used again legally on the internet.	4.39	0.490	High Level
Your online persona: how you present yourself.	4.38	0.488	Extremely High Level
locating someone online, such as a subject-matter expert, and getting their contact information.	4.38	0.488	Extremely High Degree
describing the fate of the data you post online, or your "digital footprint."	4.34	0.494	Extremely High Level
determining the ownership of concepts and information you come across online.	4.33	0.470	High Level of
Overall	4.40	0.365	Extremely High Degree

The Numerical Rating, The Range, Rating Descriptively, Qualitative Analysis — Five: 4.51–5.00, I wholeheartedly concur, Very Great Extent; Four: 3.51–4.50, I Agree, Great Extent; Three: 2.51–3.50, Neither, Moderate Extent; Two: 1.51–2.50, I Disagree, Less Extent; One: 1.00–1.50, Disagreeing strongly, Not at All.

All of the actual measures in Table 1 indicate a "very high level" of competency in teachers' digital literacy and comprehension of digital practices. Teachers are very skilled in creating and sharing content online, as seen by the indicator with the highest mean, "Involves producing and sharing content across digital platforms" (mean = 4.49, SD = 0.502). The capacity to combine technical abilities with critical thinking is demonstrated by the next item, "The ability to use technology but also the critical thinking skills to evaluate information, understand digital privacy, and navigate online environments effectively" (mean = 4.47, SD = 0.501).

However, being able to create and share information is not enough in an era where technology permeates every aspect of life. This

increased connectedness comes with a need for learners to have critical thinking skills—the ability to evaluate information, check its accuracy, understand digital privacy concerns, and navigate the vast online ecosystems. Because of the proliferation of misleading information and the deluge of information that is easily accessible online, educators must be able to distinguish fact from fiction. Furthermore, safeguarding personal information and understanding the nuances of online privacy are essential skills for maintaining one's identity and data, as our lives become more and more digital.

According to Hall, Atkins, and Fraser (2019), a teacher who "possesses the abilities, attitudes, and knowledge that are needed to engender true learning in a context that is enhanced by technology" is considered digitally competent. The phrase "digital practices" has changed, but it has consistently been associated with the various new media literacies over the last few decades. (Lankshear & Knobel, 2018). The literature currently in publication indicates that the term "digital practice" for educators is contingent upon place and period. There are several ways that education academics define it (Krumsvik, 2019).

Additionally, the indicators "Knowing what categories of users you can expect to find online" (mean = 4.41, SD = 0.494), "Using online tools and websites to find and record information online" (Mean = 4.43, SD = 0.496), and "Choosing the right tool to find, use, or create information" (mean = 4.41, SD = 0.494) all show extremely high proficiency in navigating and using digital platforms effectively. The topics of "Establishing what online information you can legally reuse" (mean = 4.39, SD = 0.490), "Presenting yourself online: your digital identity" (mean = 4.38, SD = 0.488), and "Finding a person online, for example, an expert in your discipline, and establishing their contact details" (mean = 4.38, SD = 0.488) also demonstrate extensive knowledge among teachers. Together, these metrics show how proficient instructors are in digital literacy and competency, allowing them to conduct themselves professionally and ethically when navigating, using, and interacting with others online. In addition to being necessary for individual achievement, this competence enhances the educational opportunities they offer their students.

This is an example of digital practices among education researchers who focus on teachers' proficiency when utilizing digital technologies to aid in the education of students, as stated by Johannesen, Øgrim, and Giaever (2019). However, the national curriculum can be very important in determining how schools use digital tools and how teachers use digital practices for learning.

In terms of digital literacy, educators consistently demonstrate that they are very skilled at using online resources and platforms to improve their work practices and classroom settings. A high degree of digital competence can be seen by the total mean score of 4.40 (SD = 0.365), which shows that educators are quite adept at accessing, evaluating, and successfully implementing digital practices. This suggests that educators are prepared to use digital tools, produce information that has meaning, and communicate alongside pupils and other experts in a range of online platforms.

However, there's an opportunity for minor improvement in the indicator with the lowest mean score, "Establishing who owns information and ideas you find online" (Mean = 4.33, SD = 0.470). Even though this score still indicates a very high level of competency, it raises the possibility that more knowledge and comprehension of copyright concerns, intellectual property rights, and digital material ownership may be required. Teachers frequently use online resources in their teaching and professional development; this knowledge is essential. Maintaining ethical standards and upholding intellectual property rights in the digital era requires an understanding of the legalities surrounding the use of these resources, such as how to reference and credit the original creators of content properly.

Notwithstanding this minor inequality, the high mean score indicates that educators are already adept in digital literacy, and any further developments in this area will enable them to more effectively navigate the difficulties associated with intellectual property in digital settings. In addition to successfully integrating technology into the classroom, these skills are essential for promoting moral and responsible digital behaviors that students can inherit. If copyright and ownership are continuously stressed, educators will be ready to navigate the evolving landscape of digital content and intellectual property rights.

According to Lázaro-Cantabrana (2019), this emphasizes that a teacher's digital practices can include "a set of skills, abilities, and attitudes that the teacher must develop to incorporate digital technologies into their practice and professional development." Theoretical uses of educational technology integration in the classroom by the instructor can also be referred to here, as well as their sufficient awareness of digital capabilities in practice. As stated by Eshet-Alkali and Amichai-Hamburger (2019), teachers' digital practice encompasses "a wide range of complex skills—cognitive, motoric, sociological, and emotional—users need to have in order to use digital environments effectively and involves more than just the ability to use software or operate digital devices." It is "the ability to put these into practice and mobilize them in a certain educational context, in addition to possessing specific abilities, knowledge, and attitudes" Cela-Ranilla, Gisbert-Cervera, and Esteve-Mon (2019).

In addition to being proficient with technology, teachers must comprehend the intricacies of digital practices, such as navigating online spaces, evaluating data, and successfully utilizing digital tools in the classroom. Teachers' exceptional proficiency in these areas is demonstrated by the high overall mean score of 4.40 (SD = 0.365) across a variety of digital literacy metrics. This outstanding score demonstrates how prepared educators are to use technology to improve their instructional strategies, interact with students, and further their professional development on digital platforms.

The section titled "Establishing who owns information and ideas you find online" had the mean score, which was the lowest at 4.33 (SD = 0.470), indicating a slight need for improvement. Although this still shows a very high level of proficiency, it implies that

educators might gain from deepening their knowledge of copyright and intellectual property rights. Teachers must recognize the value of respecting digital content ownership as they use internet resources more and more. When using internet resources in their classes or professional work, they must be aware of how to credit their sources properly, use them within the bounds of the law, and refrain from violating copyright. However, the overall excellence of the teachers' digital literacy is not overshadowed by the minor decline in this category. Gaining a deeper comprehension of intellectual property would enhance their digital skills even more, given the explosive growth of online content. Therefore, it makes sense to concentrate on raising understanding of copyright and content ownership as the next stage in making sure educators are equipped to successfully and morally traverse the digital world. In the end, teachers will be better equipped to use digital tools and resources in their classrooms and beyond by combining their already excellent digital abilities with a deeper comprehension of intellectual property.

Johanssen et al. (2019) emphasize this: a teacher's digital practice includes understanding learning methodologies in an educational setting in addition to mastering the fundamentals of digital technology. As a result, the term "pedagogical digital competence" was created to encompass the knowledge, abilities, and attitudes of the teacher, learning theory, subject, context, technology, and learning, and how these relate to one another in the educational process. It suggests a more advanced degree of digital practice that influences attitudes, knowledge, and instructional use of ICT for online learning and teaching. Consequently, it is associated with both technological expertise and its instructional application (Rivera-Laylle et al., 2018). It is needed of instructors in the current technological era to develop sufficient pedagogical digital competency abilities in order to employ ICT for online instruction.

Table 2 presents the Digital Proficiency of Teachers' Literacy in relation to information finding.

Table 2. *The Level of teachers' digital Proficiency in the context of locating data*.

Indicator	*A Mean*	*The SD*	*Explanation*
Involves producing and sharing content across digital platforms.	4.52	0.502	Very High Level
Technology proficiency, but also the ability to think critically in order to assess information, comprehend digital privacy, and successfully traverse online environments.	4.51	0.502	Exceptionally High Level
locating and documenting information on the internet using websites and online tools.	4.50	0.502	High Level
Being aware of the kind of users you can anticipate seeing on the internet.	4.49	0.502	High Level
deciding which tool to use, locate, or produce information.	4.49	0.502	Extremely High Degree
swiftly sorting through a vast number of search results.	4.48	0.518	High Level
Understand what you need information for, whether it's for research, problem-solving, or personal interest.	4.48	0.550	High Level
locating someone online, such as a subject-matter expert, and getting their contact information.	4.36	0.499	Extremely High
describing the fate of the data you post online, or your "digital footprint."	4.35	0.496	Extremely High Level
determining the ownership of concepts and information you come across online.	4.33	0.491	High Level
In Sum	4.45	0.362	Extremely High Degree

The Numerical Rating, The Range, Rating Descriptively, Qualitative Analysis — Five: 4.51–5.00, I wholeheartedly concur, Very Great Extent; Four: 3.51–4.50, I Agree, Great Extent; Three: 2.51–3.50, Neither, Moderate Extent; Two: 1.51–2.50, I Disagree, Less Extent; One: 1.00–1.50, Disagreeing strongly, Not at All.

A thorough summary of teachers' digital literacy in relation to information retrieval is given in Table 2, which shows that every indicator is in the "Very High Level" range. This demonstrates their sophisticated digital skills and shows that instructors have a good capacity to navigate and obtain information from a range of online sources. "Using social networks as a source of information" has the highest mean of all the metrics (mean = 4.52, SD = 0.502). This indicates that educators are quite skilled at using social media sites as useful information sources, whether for professional growth, keeping abreast of developments in education, or interacting with larger practice groups. The "Knowing what information you can find in an online library" indicator comes in second (mean = 4.51, SD = 0.502).

This score demonstrates how well teachers are able to use digital libraries and online academic databases, which give them access to a multitude of research papers, scholarly articles, and instructional materials. Their proficiency in using specialized repositories to assist their teaching and learning is demonstrated by their knowledge of the wide range of resources made available through institutional libraries. "Using advanced search options to limit and refine your search" (Mean = 4.50, SD = 0.502) is another signal that ranks highly. This suggests that teachers are quite adept at employing sophisticated search strategies, such as applying filters. This skill ensures that, even in the large and constantly growing ocean of internet content, people can rapidly find the most relevant and trustworthy information. When combined, these findings highlight the high degree of digital literacy teachers have when it comes to information retrieval. They can obtain timely, accurate, and pertinent information to improve their teaching methods and professional development since they can efficiently use a wide variety of internet tools and platforms.

Suarez-Guerrero, Sanz-Cervera, and Tarraga-Minguez (2021) support this. The educational literature has prioritized the notion of digital literacy in recent years, especially in relation to teacher training and evaluation on a global scale. Other similar phrases, such as digital teaching literacy or digital teaching competence, are used in the literature to refer to the emphasis on instructors.

The information, abilities, and attitudes required of educators to build and adapt classroom methods, support student learning in a digitally enhanced society, and further their own professional development are known as digital teacher competencies. Furthermore,

maintain that digital teaching competency differs from DL because it "is a complex pedagogical concept that involves a series of dimensions and aspects linked to forms of pedagogical representation of technology in the classroom, learning, and teacher training."

Teachers have the capacity of more than just locating information; they can also modify search tactics, use discipline-specific terminology, and efficiently handle and interpret vast volumes of data. According to the statistics, a number of important indicators highlight instructors' excellent proficiency in negotiating the challenging terrain of online information retrieval and show a very high degree of ability in these areas.

For instance, Teachers' ability to personalize their searches using specialist language pertinent to their field is highlighted by the indicator "Using keywords commonly used in your discipline to search for information online" (mean = 4.49, SD = 0.502). This guarantees that their searches are effective and exact, yielding more precise and pertinent results. Teachers can more easily access the resources that are essential to their research, teaching, and professional development by using domain-specific language.

Likewise, the capacity to "know when to change your search strategy or stop searching" (mean = 4.49, SD = 0.502) highlights how flexible educators are when faced with challenging information retrieval tasks. This ability shows that teachers are not only adept at using search engines but also able to recognize when their search method is not producing the expected results and modify their approach accordingly. When faced with difficulties, this flexibility improves their capacity to locate the correct information, whether it be by changing databases, refining search terms, or investigating new sources.

Additional metrics, such as "Filtering large numbers of search results quickly" (mean = 4.48, SD = 0.518), show that teachers can effectively sift through a significant volume of online content. Because of the vast amount of information on the internet, the ability to quickly find the most reliable and pertinent results is essential to ensuring that the research method is effective and efficient.

Furthermore, instructors' capacity to contextualize their search demands is demonstrated by the indication "Understand what you need information for, whether it's for research, problem-solving, or personal interest" (Mean = 4.48, SD = 0.550). In addition to looking for knowledge, teachers also think about why they are looking, such as for scholarly research, problem-solving, or personal curiosity. This awareness guarantees that the data they collect is in line with their objectives and makes a significant contribution to their job.

All of these factors show how well teachers are able to control and modify their search tactics in order to collect and contextualize information efficiently. These abilities improve both their professional practice and the educational experiences they offer their students by empowering educators to interact with the digital world in a sophisticated and knowledgeable way.

This is demonstrated in relation to teacher educators, introductory teacher education programs, and pre-service teachers, according to Starkey (2020). According to these programs, digital competency for teachers can be interpreted in three complementary ways: The capacity to incorporate technology into teaching practice (using it to teach), teach children who use technology, and utilize technology critically are all examples of professional digital competence (teaching, managing the digital learning environment, and the professional work of being a teacher).

There is a little amount of space for improvement in a few areas, even if the majority of the indicators used to evaluate teachers' digital literacy show remarkable proficiency. The indicators that have the lowest means, specifically "Knowing what information you can find on the web" (Mean = 4.36, SD = 0.499), "Scanning/skimming a web page to get to the key relevant information quickly" (Mean = 4.35, SD = 0.496), and "Keeping up-to-date with information from authoritative people or organizations by subscribing to Really Simple Syndication (RSS) feeds" (Mean = 4.33, SD = 0.491), all show extremely high levels of digital literacy, even though they are somewhat lower than other indicators.

The indicator "Knowing what information you can find on the web" (mean = 4.36, SD = 0.499) indicates that teachers are conversant in the wide range of online information at their disposal, but there may be opportunities to increase their familiarity with more specialized or niche online resources. Still, the score shows a sophisticated awareness of the vast digital landscape and the capacity to identify crucial information.

Similar to this, the score for "Scanning/skimming a web page to get to the key relevant information quickly" (mean = 4.35, SD = 0.496) shows that although teachers can quickly extract important details from web pages, there may be times when honing this ability could help them process and synthesize online content even more quickly and efficiently. The capacity to quickly recognize important information will only become more important in an environment that is full of information as digital content continues to expand.

Finally, a lower frequency of using RSS feeds to stay informed is indicated by the slightly lower mean for "Keeping up to date with information from authoritative people or organizations by subscribing to Really Simple Syndication (RSS) feeds" (mean = 4.33, SD = 0.491). Although RSS feeds are still a useful tool for getting real-time updates from reliable sources, this may indicate that more people should use the technology in a world where information delivery is becoming more automated and tailored.

These metrics show that instructors are highly skilled in the majority of areas related to knowledge retrieval, evaluation, and management, even though they are a little lower than others. Though there is a need for improvement in these particular areas, the minor gaps do not diminish the overall strength of teachers' digital skills, which are already well-suited for navigating the intricacies of the digital world. Teachers can further improve their capacity to obtain, process, and use internet information in their professional

activities by honing these skills.

Similar to this, Esteve-Mon (2020) finds four themes in the research they examined: (1) the ability to advance digital competences; (2) utilizing electronic technologies in order to instruct;(3) the application of technology for ongoing career advancement; and (4) the fundamental digital skills.

The level of digital literacy among teachers in relation to information use is displayed in Table 3.

Table 3. *Digital literacy level of instructors in relation to information use*.

Indicator	*The Mean*	*The SD*	*Explanation*
Sharing files legally with others.	4.90	0.301	Very High Level
Technology proficiency, but also the ability to think critically in order to assess information, comprehend digital privacy, and successfully traverse online environments.	4.88	0.357	Exceptionally High Level
locating and documenting information on the internet using websites and online tools.	4.88	0.332	Exceptionally High Level
You can anticipate finding folks in the following categories on the internet.	4.87	0.341	Extremely High Level
Evaluate the context in which the information was gathered and how it relates to your goals or questions.	4.85	0.359	Extremely High Degree
Look for trends, relationships, or anomalies within the information that can inform your conclusions.	4.85	0.359	High Level
Make decisions based on evidence rather than assumptions, improving the likelihood of positive outcomes.	4.83	0.374	Extremely High Level
locating someone online, such as a subject-matter expert, and getting their contact information.	4.78	0.419	Extremely High Degree
describing the fate of the data you post online, or your "digital footprint."	4.77	0.444	Extremely High Level
determining the ownership of concepts and information you come across online.	4.76	0.485	High Level
Overall	4.83	0.181	Extremely High Degree

The Numerical Rating, The Range, Rating Descriptively, Qualitative Analysis — Five: 4.51–5.00, I wholeheartedly concur, Extremely High Level; Four: 3.51–4.50, I Agree, To a Great Degree; Three: 2.51–3.50, Neither, To a Moderate Degree; Two: 1.51–2.50, I Disagree, Reduced Scope; One: 1.00–1.50, Disagreeing strongly, Absolutely not.

An informative overview of teachers' digital literacy in relation to information use is given in Table 4, which shows that all indicators fall into the "Very High Level" category with an average of 4.83 (SD = 0.181) overall. This shows that instructors are very skilled at implementing and using knowledge in their professional activity, in addition to having advanced retrieval skills. The indicator that has the highest mean, "Sharing files legally with others" (mean = 4.90, SD = 0.301), highlights how teachers are well aware of and follow ethical and legal guidelines while sharing digital content. Because educators regularly exchange resources, lesson plans, and academic papers, this is an especially crucial ability. Being aware of copyright rules guarantees that educators respect intellectual property rights and stay out of trouble with the law. The high score shows a dedication to moral principles and conscientious online behavior.

The indication "Assessing whether an online resource (e.g., web page, blog, wiki, video, podcast, academic journal article) or person is credible and trustworthy" (Mean = 4.88, SD = 0.357) comes in close second. This shows a very high degree of critical assessment skills, which are necessary in a time where false information can spread rapidly, to distinguish between useful and trustworthy information. By evaluating the reliability of sources, educators may make sure that the material they use in their classes is reliable, accurate, and compliant with educational requirements. Likewise, the indicator "Keeping a record of the relevant details of information you find online" (Mean = 4.88, SD = 0.332) demonstrates that instructors are quite good at keeping accurate records of the resources they consult. This ability is essential for research, academic work, and lesson planning since it makes it simple for instructors to keep track of sources, cite resources, and access pertinent information when needed. Additionally, it facilitates digital resource management and organization, which is critical for effective instruction and continuing professional development.

When taken as a whole, these indicators show a wide range of advanced digital abilities among educators, highlighting their capacity to discover and use information in an ethical, responsible, and critical manner. In an educational setting where teachers are not only consumers of digital content but also accountable contributors to the larger digital ecosystem, these abilities are essential for fostering a productive, knowledgeable, and legally compliant learning environment.

Esteve-Mon, Llopis-Nebot, and Adell-Segura (2020) show that digital literacy is a crucial skill for enabling civic engagement in a digital age. Since the final ten years of the twentieth century, it has emerged as a crucial element of open, remote, and digital education that is used in teaching and learning at all educational levels. There are several worldwide, national, and even municipal frameworks to promote, evaluate, and certify digital literacy, but there isn't yet a single, widely recognized definition in the literature. With regard to educators and students at various educational levels, as well as the viewpoint of citizens.

A high degree of competency in areas necessary for the responsible and efficient use of information is shown by several noteworthy indicators in the analysis of teachers' digital literacy. "Citing a reference to an online resource (e.g., in an assignment) using the correct format" (Mean = 4.87, SD = 0.341) is one example of such an indicator. This demonstrates how well teachers grasp academic integrity and suitable citation techniques, making sure they avoid plagiarism and provide due credit to original writers. Maintaining ethical standards in research and teaching requires this competency, particularly as more and more educators use digital resources in their

work.

Another important metric that reflects instructors' critical thinking abilities is "Evaluate the context in which the information was gathered and how it relates to your goals or questions" (Mean = 4.85, SD = 0.359). In addition to gathering material, teachers evaluate it for relevance and connection with their own research or teaching aims. Their use of material is guaranteed to be correct, appropriate for the context, and in line with their larger academic or professional goals, thanks to their capacity to critically assess context.

Teachers' analytical skills are also demonstrated by the indicator "Look for trends, relationships, or anomalies within the information that can inform your conclusions" (Mean = 4.85, SD = 0.359). This talent shows how to glean more profound insights from facts and information, seeing trends or discrepancies that could help guide choices. This is especially crucial in fields like curriculum development, data analysis, and educational research because spotting trends can lead to better tactics and interventions.

The indicator "Make decisions based on evidence rather than assumptions, improving the likelihood of positive outcomes" follows closely behind (mean = 4.83, SD = 0.374). The ability of educators to make evidence-based decisions is demonstrated here, guaranteeing that the decisions they make on their professional activities or methods of instruction are supported by credible, trustworthy data. By giving evidence precedence over conjecture, educators can improve the efficacy of their practices, resulting in better outcomes for their students and their professional development.

When taken as a whole, these indicators demonstrate how adept teachers are at analyzing and evaluating data. These competences, which range from accurate attribution and contextual analysis to pattern recognition and well-informed decision-making, guarantee that educators not only use information efficiently but also apply it in a way that advances their educational objectives and moral principles. Fostering an informed, considerate, and evidence-based approach to education requires these skills. In line with Eshet (2019), this claims that digital literacy and information use can also be characterized as an ability to survive in the digital age. It stands for a network of abilities and tactics that educators employ in online settings. Although Eshet's definition lacked sufficient depth, it claimed that, given the pervasiveness of technology in all spheres—personal, professional, educational, and economic—A teacher cannot function without a set of abilities known as digital literacy. It follows that it would be challenging for pupils to advance in their schooling if they lacked digital literacy skills.

The indicators with the lowest means are "Using information in different media, for example, podcasts or videos" (Mean = 4.76, SD = 0.485), "Using other people’s work (found online) without committing plagiarism" (Mean = 4.78, SD = 0.419), and "Using social bookmarking to organize and share information" (Mean = 4.77, SD = 0.444). As the lowest, these nevertheless demonstrate a "very high level" of proficiency. The little shortcomings highlight opportunities to enhance several aspects of digital information management and media consumption, ensuring that educators continue to adjust to new digital tools and approaches. These characteristics are necessary to establish an environment where knowledge is shared and accessible in an ethical manner while also being presented in a range of interesting ways that promote learning.

This complements the critical evaluation of information proposed by Cohen (2019). A key element of effective internet use is assessing the information one comes across online. Additionally, students who acquire some form of schooling must possess this metacognitive ability. Assessing information entails assessing the internet text's reliability and authenticity. Part of the idea behind critical evaluation of online information was for readers to use their critical thinking skills to (a) question, analyze, and compare the resources they found; (b) assess the quality of the information based on a variety of criteria; and (c) support their opinions with evidence from multiple sources and their own prior knowledge.

The level of digital literacy among teachers in relation to information creation is displayed in Table 4.

Table 4 displays instructors' digital literacy in relation to information generation, with all indicators reaching a "Very High Level" of ability. Teachers have an overall mean of 4.80 (SD = 0.239), which indicates that they are quite skilled in digital literacy when it comes to information creation, which includes teamwork, creative thinking, and communication across a range of platforms and formats. The findings imply that teachers are quite competent at addressing the demands for various audiences, creating an extensive variety of quality digital content, and collaborating in online environments.

"Writing online for different audiences, e.g., a web page or blog entry for private use, for reading by your fellow students, for reading by your tutor, or for reading by anyone in the world" (Mean = 4.83, SD = 0.374); "Working with others online to create a shared document or presentation" (Mean = 4.83, SD = 0.396); "Using media-capture devices, e.g., recording and editing a podcast or video" (Mean = 4.83, SD = 0.396); "Develop content in various formats, including videos, podcasts, infographics, and presentations, to reach diverse audiences" (Mean = 4.83, SD = 0.396); and "Review and revise your work to enhance clarity, coherence, and overall quality" (Mean = 4.83, SD = 0.396). The findings indicate that educators are highly competent in a few key areas of digital literacy, including media creation, content creation, collaboration, and quality-checking output. Teachers are adept at adapting their materials to meet the requirements of students, peers, and larger educational communities as well as producing engaging, relevant content for a range of audiences. This set of skills ensures that educators are not only information consumers but also producers of high-quality, valuable content that can be shared and used in a variety of learning environments.

Table 4. *Teachers' level of digital literacy when it comes to information creation*.

Indicator	*The Mean*	*SD*	*Explanation*
Sharing files legally with others.	4.83	0.374	Advanced Level
Technology proficiency, but also the ability to think critically in order to assess information, comprehend digital privacy, and successfully traverse online environments.	4.eight3	0.396	Superbly High Level
locating and documenting information on the internet using websites and online tools.	4.eight3	0.396	Outstandingly High
Develop content in various formats, including videos, podcasts, infographics, and presentations, to reach diverse audiences.	4.83	0.396	With High Level
Review and revise your work to enhance clarity, coherence, and overall quality.	4.83	0.396	Exceptionally High Degree
Engage in creative thinking to develop original ideas or approaches based on your knowledge and experiences.	4.82	0.389	High Level
Make decisions based on evidence rather than assumptions, improving the likelihood of positive outcomes.	4.78	0.439	Extremely High Level
locating someone online, such as a subject-matter expert, and getting their contact information.	4.78	0.439	Extremely High Degree
describing the fate of the data you post online, or your "digital footprint."	4.76	0.430	Extremely High Level
determining the ownership of concepts and information you come across online.	4.72	0.488	High Level
In Total	4.80	0.239	Extremely High Degree

The Rating in Numbers, The Range, Rating Descriptively, Qualitative Analysis — Five: 4.51–5.00, I wholeheartedly concur, Very Great Extent; Four: 3.51–4.50, I Agree, To a Great Degree; Three: 2.51–3.50, Neither, To a Moderate Degree; Two: 1.51–2.50, I Disagree, Reduced Scope; One: 1.00–1.50, Disagreeing strongly, Not at All.

Bakkenes et al. (2019) propose an example of this: teachers and students can readily create information through digital content using a range of techniques and numerous media. Teachers can implement the creation of digital content, which might be a substantial and effective technique to improve teaching and learning, in order to embrace the 21st-century skills that students are required to acquire. Teachers can also employ digital technologies to reduce the amount of time they spend teaching and spend more time helping students study.

"Engage in creative thinking to develop original ideas or approaches based on your knowledge and experiences" (mean = 4.82, SD = 0.389), "Writing in different media for people to read on-screen" (mean = 4.78, SD = 0.439), and "Gather insights from existing sources to inform your thinking and inspire new concepts" (mean = 4.78, SD = 0.439) are indicating of slightly lower means. These metrics still show a very high degree of proficiency, but they also point to areas that need improvement, especially in terms of writing variation and creative expression. These areas offer educators the chance to improve their communication skills and interact with a variety of audiences in more engaging and dynamic ways. Teachers already exhibit a high capacity for creative expression in creating curriculum that is engaging and relevant.

Nonetheless, the little disparity between these metrics indicates that more may be done to push the envelope, especially when it comes to using more creative, inventive methods when creating digital material. Promoting the use of more varied formats, narrative strategies, and imaginative design components may enable educators to create even more unique and captivating resources, which would increase students' engagement and participation even more.

Mihailidis and Cohen (2018) emphasize this by offering access to a limitless pool of individuals and digital content resources worldwide to enhance the educational process. Increased student engagement in academic learning may result from the increased customisation and personalization that this kind of communication offers for the requirements and interests of individual learners. Curating is a common method of producing information for digital communication. It is quickly becoming crucial for educators who employ online teaching and learning to be able to curate at a high level, both in terms of information and aesthetic appeal.

The indicators with the lowest means are "Communicating with others online (forums, blogs, social networking sites, audio, video, etc.)" (mean = 4.72, SD = 0.488) and "Adding comments to blogs, forums, or web pages, observing netiquette and appropriate social conventions for online communications" (mean = 4.76, SD = 0.430). Despite being at the lower end of the spectrum, these measures nevertheless show a very high degree of proficiency, indicating teachers' great capacity to communicate online while abiding by important social norms. These findings imply that educators are proficient in using digital platforms, encouraging positive and civil online interactions, and comprehending the standards for communication in various online environments.

These areas show that teachers have a firm grasp of how to participate meaningfully in digital spaces, adhering to professionalism and social etiquette when interacting with students, colleagues, and larger online communities, even though they are marginally lower than other indicators. In order to build strong bonds and encourage fruitful conversations in online learning environments, teachers are adept at employing acceptable vocabulary, tone, and behavior in digital communication.

This confirms Mihailidis and Cohen's (2018) assertion that for digital content to be a valuable teaching tool, it must be properly communicated. People who use social media platforms such as Facebook, Instagram, and Twitter must be able to comprehend and work with content in a variety of formats. Web 2.0 tools make it easier to create online communities and are social, collaborative, interactive, and user-friendly. Teachers and students can communicate more easily and quickly when they can use mobile devices like

smartphones and tablets to share digital content.

The level of teachers' digital competency in relation to professional engagement is shown in Table 5.

Table 5. *degree of professional engagement and digital competency among instructors*.

Indicator	*The Mean*	*SD*	*Explanation*
Sharing files legally with others.	4.83	0.374	Very High Level
Technology proficiency, but also the ability to think critically in order to assess information, comprehend digital privacy, and successfully traverse online environments.	4.83	0.396	Very High Level
locating and documenting information on the internet using websites and online tools.	4.83	0.396	Very advanced level
Develop content in various formats, including videos, podcasts, infographics, and presentations, to reach diverse audiences.	4.83	0.396	Very Elevated
Review and revise your work to enhance clarity, coherence, and overall quality.	4.83	0.396	Extremely Superior Degree
Engage in creative thinking to develop original ideas or approaches based on your knowledge and experiences.	4.82	0.389	Elivated
Make decisions based on evidence rather than assumptions, improving the likelihood of positive outcomes.	4.78	0.439	Extremely High Level
locating someone online, such as a subject-matter expert, and getting their contact information.	4.78	0.439	Extremely Advanced Level
describing the fate of the data you post online, or your "digital footprint."	4.76	0.430	Extremely High Level
determining the ownership of concepts and information you come across online.	4.72	0.488	High Level
In Total	4.80	0.239	Extremely High Degree

The Rating in Numbers, The Range, Rating Descriptively, Qualitative Analysis — Five: 4.51–5.00, I wholeheartedly concur, Very Great Extent; Four: 3.51–4.50, I Agree, To a Great Degree; Three: 2.51–3.50, Neither, To a Moderate Degree; Two: 1.51–2.50, I Disagree, Reduced Scope; One: 1.00–1.50, Disagreeing strongly, Not at All.

"Providing guidance to peers in using ICT tools effectively" (mean = 4.89, SD = 0.338), the indicator with the highest mean, represents the instructors'exceptional ability to mentor colleagues in integrating technology into educational practices. Table 6 further illustrates the level of teachers' digital competence in terms of professional engagement, with an overall mean of 4.58 (SD = 0.246), interpreted as a "very high level." In terms of collaboration and leadership in advancing ICT projects, "Working with educators, IT professionals, and stakeholders to develop and implement effective ICT strategies" (mean = 4.88, SD = 0.347) comes in second.

These results demonstrate teachers' leadership, collaboration, and mentoring skills in the area of ICT integration. Teachers have a crucial role in motivating their peers and deciding the long-term direction of ICT programs in their schools, in addition to being adept with digital tools.

According to Pianfetti (2018), a teacher needs to possess excellent digital literacy skills in order to become a proficient digital educator. According to her, language teachers can actively engage in professional development in technology by developing their digital literacy. Akayoğlu et al. (2020) also highlighted the significance of giving pre-service teachers pedagogical knowledge and proficiency with digital technologies.

Additionally, the signs show extremely high levels of proficiency. For instance, "Developing methods to assess the impact of ICT integration on learning outcomes and making data-driven decisions to improve practices" (mean = 4.79, SD = 0.517) and "Staying updated with the latest technologies, tools, and methodologies in ICT" (mean = 4.80, SD = 0.510) demonstrate teachers' dedication to evidence-based decision-making and ongoing learning. Likewise, their capacity to successfully integrate technology into education is demonstrated by "Integrating ICT into curricula to enhance teaching and learning" (mean = 4.78, SD = 0.488). These metrics demonstrate the teachers' profound commitment to ongoing professional development. In addition to being skilled at incorporating ICT into the classroom, teachers also show a constant commitment to learning new things, evaluating the effects, and modifying their methods to optimize the use of technology in the classroom. They may set an example and design dynamic, future-ready learning environments that empower educators and students thanks to these competencies.

This result aligns with Son (2018); teachers' ability to quickly adjust to technology is more likely to be influenced by their digital literacy. Enabling teachers to use technology in the classroom should, however, take into account improving their digital literacy and ability to quickly adjust to new technologies. If not, the teacher's ability to quickly advance their professional development in the field may be hampered by their adaptation to digital language teaching technologies.

The indicators that have the lowest means, but are still very high, are "I actively develop my digital teaching skills" (mean = 4.33, SD = 0.524), "I use digital technologies to work together with colleagues inside and outside my educational organization" (mean = 4.33, SD = 0.521), and "I systematically use different digital channels to enhance communication with students, parents, and colleagues: e.g., emails, blogs, the school's website, apps" (mean = 4.35, SD = 0.545). Although still at a very high level, the indicator with the lowest rating, "I participate in online training opportunities" (mean = 4.31, SD = 0.562), indicates that teachers may be less involved in structured online training or may require more opportunities to improve this aspect of their professional development. In terms of professional engagement, the findings show that teachers exhibit a very high degree of digital competency, especially when it comes to mentoring colleagues, working with stakeholders, and keeping up with ICT trends.

According to Cabero, Barroso, Palacios, and Llorente (2020), one of the most important skills that people in general and educators in particular need to have in the future society is digital competency. Teachers are vital to this process of technology integration and play a crucial role in the adoption and implementation of ICT in the classroom, as educational action will be necessary for the transformation and enhancement of education, among other things. This implies that in order to integrate and use technologies in a pedagogical way, educators must have strong digital abilities.

The level of teachers' digital competency in terms of digital resources is shown in Table 6.

Table 6. *degree to which educators are proficient in using digital tools*.

Indicator	*The Mean*	*The SD*	*Explanation*
Give pupils the opportunity to investigate ideas through simulations and virtual experiments.	4.98	0.157	Highest Level
Add interactive materials, audio, and videos to your courses.	4.92	0.333	Elivated
Create immersive learning experiences in virtual settings.	4.91	0.343	Exceptionally High Level
Develop content in various formats, including videos, podcasts, infographics, and presentations, to reach diverse audiences.	4.83	0.396	Exceptionally High Quality
Review and revise your work to enhance clarity, coherence, and overall quality.	4.83	0.396	Extremely High Degree
Engage in creative thinking to develop original ideas or approaches based on your knowledge and experiences.	4.82	0.389	High Level
Make decisions based on evidence rather than assumptions, improving the likelihood of positive outcomes.	4.78	0.439	Extremely High Level
locating someone online, such as a subject-matter expert, and getting their contact information.	4.78	0.439	Extremely High Degree
describing the fate of the data you post online, or your "digital footprint."	4.76	0.430	Extremely High Level
determining the ownership of concepts and information you come across online.	4.72	0.488	High Level
In Total	4.70	0.217	Very High Level

Numerical Rating, The Range, Rating Descriptively, Qualitative Analysis — 5: 4.51–5.00, I wholeheartedly concur, Very Great Extent; 4: 3.51–4.50, I Concured, Great Extent; 3: 2.51–3.50, Not both, Moderate Extent; 2: 1.51–2.50, vehemently disagreeing, Less Extent; 1: 1.00–1.50, Having a strong disagreement, Not at All.

The indicator with the highest mean, "allow students to explore concepts through virtual experiments and simulations" (mean = 4.98, SD = 0.157), demonstrates teachers' exceptional ability to use state-of-the-art digital tools for interactive and experiential learning. Table 7 displays the level of teachers' competency with regard to digital resources. The total mean of 4.70 (SD = 0.217) is considered to be at a "very high level." Their effective utilization of virtual reality and multimedia platforms to enhance lessons and encourage student engagement is demonstrated by the following: "Create immersive learning experiences in virtual settings" (mean = 4.91, SD = 0.343) and "Supplement lessons with videos, audio, and interactive content" (mean = 4.92, SD = 0.333).

These indications show how well teachers are able to use state-of-the-art technology in their classes, converting them into learning experiences that are captivating, dynamic, and immersive. Teachers create environments where students are active participants in their education rather than just passive consumers of knowledge by using the possibilities of digital tools. Students need these abilities to succeed in a world that is becoming more and more digital and tech-driven.

König et al. (2021) emphasize that situation-specific skills are thought to be more closely related to teacher effectiveness than teacher knowledge. This altered emphasis on teacher competency has been incorporated into a number of strategies. It is difficult for To link and adapt its frameworks and models to the new professional requirements that teachers must fulfill as part of the school digitalization process; current research on teacher competency is needed (McFarlane, 2019).

Other indications also show a very high degree of skill. The statement exemplifies teachers' attempts to encourage diversity through digital resources: "Provide free, accessible learning materials and courses to support diverse learning needs" (mean = 4.90, SD = 0.353). Their ability to use interactive and organizational tools effectively is further demonstrated by the statements "Enhance engagement through interactive quizzes, flashcards, and video lessons" (Mean = 4.75, SD = 0.454) and "Facilitate course management, content delivery, and student collaboration" (mean = 4.54, SD = 0.517).

These metrics demonstrate teachers' proficiency with course administration and organizing tools, as well as their great ability to create inclusive and engaging learning environments. Their ability to offer easily available resources, engage students with engaging information, and promote productive teamwork highlights their dedication to enhancing the standard and equity of education via technology. Teachers are able to provide rich, captivating learning experiences and satisfy the requirements of a varied student body because of these competencies.

Along with Kaiser and König (2019), this claim is that for many years, educational research has focused on teachers' proficiency in pedagogical settings. "Context-specific, cognitive performance dispositions that are functionally responsive to situations and demands in certain domains" is one definition of teacher competence. According to the notion of competence, both cognitive and affective-motivational domains are covered, as shown by generic models of professional competence (Blömeke, 2018).

"Facilitate easy access to and sharing of resources among students and instructors" (mean = 4.53, SD = 0.518), "I make my own digital materials and alter pre-existing ones to suit my needs" (mean = 4.52, SD = 0.518), "I effectively protect sensitive content, e.g., exams,

students' grades, and personal data" (mean = 4.52, SD = 0.502), and "I use different internet sites and search strategies to find and select a range of different digital resources" (mean = 4.48, SD = 0.534) are the indicators with the lowest means, but still at a very high level. These suggest that some technical and security-related facets of digital resource management are given a little less attention.

High levels of digital competency are demonstrated by these indicators, which also point to areas for improvement in terms of resource management, personalization, security, and the variety of digital tools available. By concentrating on these elements, educators can improve their digital practices even more and make sure they are utilizing technology to its fullest potential for safe, cooperative learning environments as well as efficient instruction.

One example of this is the use of pertaining to teachers' professional digital competencies and digital resources (Bottino, 2020). We have divided the articles into groups based on how they apply the conceptual idea in order to methodically capture the various aspects and elements. We then converted the coding results into a widely recognized definition. This definition should serve as a guide for future efforts to advance teachers' professional digital competency in using digital resources.

The degree of digital competency of teachers in terms of teaching and learning is shown in Table 7.

Table 7. *degree of teachers' proficiency using digital tools for instruction and learning*.

The Indicator	*The Mean*	*The SD*	*Explanation*
Allow students to explore concepts through virtual experiments and simulations.	4.98	0.157	Very High Level
Supplement lessons with videos, audio, and interactive content.	4.92	0.333	Exceptionally High Level
Create immersive learning experiences in virtual settings.	4.91	0.343	Exceptionally High Level
Develop content in various formats, including videos, podcasts, infographics, and presentations, to reach diverse audiences.	4.83	0.396	Extremely High Level
Review and revise your work to enhance clarity, coherence, and overall quality.	4.83	0.396	Extremely High Degree
Engage in creative thinking to develop original ideas or approaches based on your knowledge and experiences.	4.82	0.389	High Level
Make decisions based on evidence rather than assumptions, improving the likelihood of positive outcomes.	4.78	0.439	Extremely High Level
locating someone online, such as a subject-matter expert, and getting their contact information.	4.78	0.439	Extremely High Degree
describing the fate of the data you post online, or your "digital footprint."	4.76	0.430	Extremely High Level
determining the ownership of concepts and information you come across online.	4.72	0.488	High Level

Numerical Rating, The Range, Rating Descriptively, Qualitative Analysis — 5: 4.51–5.00, I wholeheartedly concur, Very Great Extent; 4: 3.51–4.50, I Concured, Great Extent; 3: 2.51–3.50, Not both, Moderate Extent; 2: 1.51–2.50, vehemently disagreeing, Less Extent; 1: 1.00–1.50, Having a strong disagreement, Not at All.

Teachers' extraordinary capacity to use digital tools for instant feedback and assessment is demonstrated by the indicator with the highest mean, "Use tools like Google Forms and Socrative for real-time quizzes and formative assessments" (Mean = 4.93, SD = 0.310). "Teach students about responsible online behavior and the importance of digital footprint" (mean = 4.89, SD = 0.384) and "Encourage students to use technology for collaboration on projects" (mean = 4.91, SD = 0.317) rank closely behind this, indicating the teachers' commitment to promoting student collaboration and digital responsibility. Table 8 displays the teachers' level of digital competence in terms of teaching and learning, with an overall mean of 4.64 (SD = 0.224), interpreted as "Very High Level."

These metrics show how proficient teachers are at fostering student cooperation, teaching digital responsibility, and utilizing technology for formative assessments. Their ability to use digital technologies for these reasons effectively not only improves instruction but also guarantees that students have the skills they need to thrive in a society that is becoming more technologically advanced and interconnected.

According to Albirini (2019), the education system has undergone a significant transformation since the late 20th century, when learning tools were developed. The reason for this is that technology can provide an active, easily accessible, and comprehensive teaching and learning environment. In recent years, education ministries around the world have made a vast array of resources and training available to enhance the integration of state-of-the-art technologies into their curriculums. A substantial sum has been allotted to provide educators with the resources they require to improve the educational approach. Most countries still struggle with the problem of teachers not utilizing the most advanced technologies, despite all the efforts. Numerous earlier studies have demonstrated that applying ICT to the teaching and learning process can improve student accomplishment, making this a significant problem today (Jamieson-Proctor, Albion, Finger, Cavanagh, Fitzgerald, Bond, & Grimbeek, 2019).

Other indications also show a very high degree of skill. Examples that demonstrate teachers' capacity to meet a range of learning needs and promote interactive learning include "Encourage students to give and receive feedback through online forums or digital portfolios" both "Provide varied digital resources to adapt to different learning styles and abilities" (Mean = 4.84, SD = 0.430) and "Mean = 4.84, SD = 0.485). These measurements demonstrate how effectively educators create inclusive, flexible, and stimulating learning environments using digital resources. By catering to each student's unique needs and promoting collaborative feedback, teachers may enhance learning outcomes and position students for success in the digital age. In a stimulating and supportive learning environment, these qualities can help all students.

According to Capan (2021), instructors are accepting of ICT utilization in the classroom. Teachers' beliefs were the primary barrier to

implementation because they applied the change in their teaching and learning process. Furthermore, earlier research has shown a high correlation between teachers' opinions and how they use ICT (Cassim & Obono, 2019). The importance of teachers' roles is growing, especially in the area of ICT pedagogy, which can enhance students' performance as well as their capacity for creativity and critical thought.

Furthermore, Chien et al. (2019) have shown that students have high expectations for ICT integration in the classroom because the younger generation "digital natives" were born and reared with technology. As students get younger, they have increasing expectations for how ICT will be used in the classroom. It also showed how much ICT integration is reliant on personal traits that influence how one views oneself. Furthermore, this study indicates that when teachers and students feel at ease using technology, they are more inclined to utilize it outside of the classroom. ICT integration in the classroom is hindered by teachers' attitudes, confidence, and skills, which reduces the percentage of ICT integration.

"I monitor my students' activities and interactions in the collaborative online environments we use" (mean = 4.45, SD = 0.500), "When my students work in groups or teams, they use digital technologies to acquire and document evidence" (mean = 4.43, SD = 0.496), "I use digital technologies to allow students to plan, document, and monitor their learning themselves" (mean = 4.38, SD = 0.522), and "I carefully consider how, when, and why to use digital technologies in class to ensure that they are used with added value" (mean = 4.36, SD = 0.482) are the indicators with the lowest means, but still at a quite high level. When it comes to incorporating digital tools into the classroom, these indicators point to a marginally diminished emphasis on self-directed learning and strategic decision-making. There is a faint suggestion that the focus may not be as strong on enabling students to take complete responsibility for their learning and make thoughtful decisions about how they use technology, even though teachers show great proficiency in offering a variety of digital resources and facilitating collaborative feedback.

Cox and Marshall (2019) bolster this by demonstrating that teachers may improve using ICT in the classroom only with a conventional, focused approach. Despite not accurately reflecting the types of ICT utilized, instructors are highly proficient and confident in their use of ICT in the classroom. This stems from their belief that ICT could be a valuable learning aid, especially when it comes to relating to real-world applications. ICT has been incorporated into the educational style in order to help students build and develop their knowledge. The study shows that in ICT professional development, the link between training and pedagogically focused methods may indicate the balance between competency and confidence. This would allow the school administration to ensure that instructors have the resources to incorporate ICT into the classroom successfully.

The degree of teachers' digital competency as measured by assessment is shown in Table 8.

Table 8. *level of assessment-related digital competency among teachers*.

Indicator	*Mean*	*SD*	*Explanation*
Allow students to explore concepts through virtual experiments and simulations.	4.98	0.157	Very High Level
Supplement lessons with videos, audio, and interactive content.	4.92	0.333	Exceptionally High Level
Create immersive learning experiences in virtual settings.	4.91	0.343	Exceptionally High Level
Develop content in various formats, including videos, podcasts, infographics, and presentations, to reach diverse audiences.	4.83	0.396	Extremely High Level
Review and revise your work to enhance clarity, coherence, and overall quality.	4.83	0.396	Extremely High Degree
Engage in creative thinking to develop original ideas or approaches based on your knowledge and experiences.	4.82	0.389	High Level
Make decisions based on evidence rather than assumptions, improving the likelihood of positive outcomes.	4.78	0.439	Extremely High Level
locating someone online, such as a subject-matter expert, and getting their contact information.	4.78	0.439	Extremely High Degree
describing the fate of the data you post online, or your "digital footprint."	4.76	0.430	Extremely High Level
determining the ownership of concepts and information you come across online.	4.72	0.488	High Level
The Total	4.67	0.237	Very High Level

Numerical Rating, The Range, Rating Descriptively, Qualitative Analysis — 5: 4.51–5.00, I wholeheartedly concur, Very Great Extent; 4: 3.51–4.50, I Concured, Great Extent; 3: 2.51–3.50, Not both, Moderate Extent; 2: 1.51–2.50, vehemently disagreeing, Less Extent; 1: 1.00–1.50, Having a strong disagreement, Not at All.

Teachers are exceptionally adept at using digital tools to provide fast feedback on student achievement, as seen by the highest-rated criteria, "Provide immediate insights into student understanding" (mean = 4.93, SD = 0.336). With an overall mean of 4.67 (SD = 0.237) in Table 9, the level of teachers' digital competency in terms of assessment is interpreted as "Very High Level." The second and third-placed items, respectively, are "Assess students' ability to communicate ideas effectively using technology" (mean = 4.88, SD = 0.393) and "Adjust difficulty based on student performance, providing a personalized assessment experience" (mean = 4.88, SD = 0.414), which show the teachers' proficiency in evaluating students' technological communication skills and tailoring tests to meet individual needs.

These metrics highlight how well teachers use digital technologies to give prompt feedback, evaluate their proficiency with digital communication, and customize assessment experiences. In addition to improving student learning, these competencies emphasize how crucial customization and adaptability are to successful digital education. By incorporating these strategies into their instruction, educators are guaranteeing that students acquire the focused assistance they require to advance academically and technologically.

The outcome is consistent with Thompson (2019): since the beginning of the rapid growth of technologies, international research has focused on digital competency evaluation methods, instruments, and tools. The most widely used self-assessment tools for evaluating digital competency were found through an analysis of the literature. This may have to do with the fact that the proposals under review seek to understand digital competency instead of developing and validating a digital competency assessment tool that is relevant to all fields of study. Another illustration of this is the use of many frameworks in the development of the assessment instruments.

The current state of affairs is comparable to that of information and digital literacies, according to Doc (2019), who reviewed the concepts and discovered that the vocabulary and underlying concepts used in the literature on digital skills are inconsistent. When talking about digital competence, a variety of terminology is used, such as digital skills, digital literacy, media literacy, information literacy, transversal skills, new media literacy, e-skills, e-competences, and, sometimes, digital intelligence. These concepts are sometimes referred to as 21st-century competencies.

Other signs also show high proficiency. Strong attempts are made to encourage responsible digital practices and collaborative evaluation, as evidenced by the statements "Evaluate students' understanding of responsible technology use and online behavior" (mean = 4.62, SD = 0.611) and "Create clear criteria for students to assess projects collaboratively using tools like Google Sheets or specific assessment apps" (mean = 4.55, SD = 0.500). "Evaluate student learning at the end of an instructional unit" is one of the indicators with the lowest means, although it is still at a very high level (mean = 4.48, SD = 0.501). As stated in the statements, "I use digital assessment formats to monitor student progress" (mean = 4.47, SD = 0.501), "I analyze all data available to me to identify students who need additional support timely" (mean = 4.47, SD = 0.501), and "Create quizzes and surveys for instant feedback" (mean = 4.45, SD = 0.500).

The areas of data analysis and prompt intervention based on digital assessments have room for improvement, even though teachers are quite skilled at assessing digital responsibilities, encouraging collaborative learning, and developing assessment tools. By improving these areas, educators would be better equipped to adapt their lessons to the needs of each individual student, guaranteeing that every student gets the focused assistance they need to succeed.

Tejada and Pozos (2018) concur and use a variety of digital competency models, frameworks, and tactics to apply comparable competence assessment tools and identify shared traits. Analyzing the digital competency assessment tools' applicability in light of field-specific notions is also crucial. Since it can be difficult to understand the concept, it is not appropriate to use a single assessment tool to assess digital competency.

Additionally, according to Shulman (2019), digital competence is expanding into new contexts and becoming more conceptually complex as we transition toward more all-encompassing work environments that incorporate more interactive technologies, informal learning and working settings, and open learning spaces.

Table 9 shows the degree of digital competency among teachers in terms of empowering students.

Table 9. *degree to which teachers are proficient in digital tools for empowering students*.

Indicator	*Mean*	*SD*	*Explanation*
Allow students to explore concepts through virtual experiments and simulations.	4.98	0.157	Very High Level
Supplement lessons with videos, audio, and interactive content.	4.92	0.333	Exceptionally High Level
Create immersive learning experiences in virtual settings.	4.91	0.343	Exceptionally High Level
Develop content in various formats, including videos, podcasts, infographics, and presentations, to reach diverse audiences.	4.83	0.396	Extremely High Level
Review and revise your work to enhance clarity, coherence, and overall quality.	4.83	0.396	Extremely High Degree
Engage in creative thinking to develop original ideas or approaches based on your knowledge and experiences.	4.82	0.389	High Level
Make decisions based on evidence rather than assumptions, improving the likelihood of positive outcomes.	4.78	0.439	Extremely High Level
locating someone online, such as a subject-matter expert, and getting their contact information.	4.78	0.439	Extremely High Degree
describing the fate of the data you post online, or your "digital footprint."	4.76	0.430	Extremely High Level
determining the ownership of concepts and information you come across online.	4.72	0.488	High Level
The Total	4.67	0.237	Very High Level

Numerical Rating, The Range, Rating Descriptively, Qualitative Analysis — 5: 4.51–5.00, I wholeheartedly concur, Very Great Extent; 4: 3.51–4.50, I Concured, Great Extent; 3: 2.51–3.50, Not both, Moderate Extent; 2: 1.51–2.50, vehemently disagreeing, Less Extent; 1: 1.00–1.50, Having a strong disagreement, Not at All.

The one that highest-rated indicator, "Create an open environment where students feel comfortable seeking help with technology-related issues" (mean = 4.98, SD = 0.203), demonstrates the teachers' exceptional ability to foster a supportive and inclusive digital learning environment. "Provide options for how students can demonstrate their understanding, whether through presentations, videos, or digital portfolios" (mean = 4.97, SD = 0.22) ranks second in terms of their flexibility in accommodating a variety of learning preferences and methods. Table 10 displays the level of teachers' digital competence in terms of empowering learners, with an overall mean of 4.90 (SD = 0.152), interpreted as "Very High Level."

Teachers' dedication to developing inclusive, adaptable, and encouraging digital learning environments is demonstrated by these

factors. By creating an environment where students feel free to ask for assistance and providing a variety of ways for students to demonstrate their learning, teachers are not only increasing student engagement and self-efficacy but also making sure that each student's individual skills are acknowledged and encouraged. The development of an inspiring digital learning environment that inspires students to succeed in a world that is becoming more and more tech-driven requires certain competencies.

Pianfetti (2018) supports this by stating that the usage of digital technologies offers an amazing array of tools and resources that can improve the educational process and give students vital skills for the future, making sure that students are digitally enabled. The world's growing dependence on science and technology has made it a significant worry for the government and educational institutions. Digital empowerment is the capacity to make responsible and efficient use of web-based resources to foster learning, creativity, and critical thinking.

As a result, Pianfetti (2018) asserts that the utilization of digital technology offers an impressive array of tools and resources that can improve education and equip students with future-ready abilities. A major concern for educational institutions and the government is making sure that students are digitally enabled as the world grows more reliant on science and technology. The ability to effectively and responsibly use web-based resources to promote learning, critical thinking, and creativity is referred to as digital empowerment.

Additional metrics also demonstrate a strong dedication to student empowerment. Teachers' creative ways to tailor instruction and increase engagement are demonstrated by statements such as "I use digital technologies to offer students personalized learning opportunities" (mean = 4.95, SD = 0.219) and "Use game-based learning platforms" (mean = 4.93, SD = 0.295). Furthermore, indicators that emphasize the importance of developing digital literacy and teamwork include "Teach students how to navigate digital tools, evaluate online resources, and engage in online communication responsibly" (mean = 4.87, SD = 0.429) and "Encourage students to share their skills with classmates, reinforcing their knowledge and building confidence" (mean = 4.85, SD = 0.423). The metric with the lowest average, although still at a very high level, "When I create digital assignments for students, I consider and address potential digital problems" (mean = 4.78, SD = 0.434), indicates room for improvement in terms of addressing technological challenges and digital equity.

Teachers' strong dedication to empowering students through engagement, digital literacy, personalized learning, and teamwork is shown in all of these metrics. Although the shown competencies are very high, there is a need for further improvement in the way that digital equity and technical problem-solving are approached to guarantee that every student has the resources and assistance required to thrive in a learning environment that is rich in digital content.

According to Sadiku (2022), empowerment should involve giving people the knowledge, skills, and tools they need to take charge of their own education. Additionally, they will gain greater control over their circumstances and be better equipped to handle common problems. Access to digital technologies is only one aspect of digital empowerment; it is a multi-phase process that gives people the ability to learn new skills and opportunities so they may actively engage and express themselves in a globalized society.

Teachers' Digital Competence Level in Facilitating Learners is shown in Table 10.

Table 10. *degree of proficiency that educators have with technology in terms of supporting students*.

Indicator	*Mean*	*SD*	*Explanation*
Allow students to explore concepts through virtual experiments and simulations.	4.98	0.183	Very High Level
Supplement lessons with videos, audio, and interactive content.	4.93	0.295	Very High Level
Create immersive learning experiences in virtual settings.	4.93	0.347	Very High Level
Develop content in various formats, including videos, podcasts, infographics, and presentations, to reach diverse audiences.	4.92	0.278	Very High Level
Review and revise your work to enhance clarity, coherence, and overall quality.	4.91	0.317	Extremely High Degree
Engage in creative thinking to develop original ideas or approaches based on your knowledge and experiences.	4.89	0.384	High Level
Make decisions based on evidence rather than assumptions, improving the likelihood of positive outcomes.	4.88	0.357	Extremely High Level
locating someone online, such as a subject-matter expert, and getting their contact information.	4.86	0.373	Extremely High Degree
describing the fate of the data you post online, or your "digital footprint."	4.83	0.496	Extremely High Level
determining the ownership of concepts and information you come across online.	4.80	0.422	High Level
The Total	4.89	0.153	Very High Level

Numerical Rating, The Range, Rating Descriptively, Qualitative Analysis — 5: 4.51–5.00, I wholeheartedly concur, Very Great Extent; 4: 3.51–4.50, I Concured, Great Extent; 3: 2.51–3.50, Not both, Moderate Extent; 2: 1.51–2.50, vehemently disagreeing, Less Extent; 1: 1.00–1.50, Having a strong disagreement, Not at All.

The one that highest-rated indicator, "Use interactive presentations, discussions, and hands-on activities to keep students engaged" (Mean = 4.98, SD = 0.183), demonstrates teachers' remarkable ability to sustain students' interest and engagement through dynamic and interactive methods. Table 11 displays The following statements clearly demonstrate teachers' methodical and phased approach to integrating technology into the learning process: "Align ICT tools with learning objectives, ensuring that technology enhances rather than distracts from the curriculum" (Mean = 4.93, SD = 0.295) and "Start with basic tools and gradually introduce more complex technologies as students become comfortable" (Mean = 4.93, SD = 0.347). The overall mean of teachers' digital competence in terms

of facilitating learners stands at 4.89 (SD = 0.153), which is interpreted as "Very High Level."

These metrics highlight educators' dedication to leveraging technology to improve education, engage students, and meet their developmental requirements. An educational philosophy that emphasizes students' engagement and achievement in an increasingly digital world is shown in the emphasis on interactive methods, strategic integration, and the gradual introduction of resources. These procedures make sure that technology catalyzes more efficient, customized, and fulfilling learning experiences rather than merely a tool.

According to Ma'arop and Embi (2019), instructors who are trying to incorporate technology into the classroom face a variety of difficulties due to the rapid digitization of schooling in the last few years. In addition to the technical aspects of using them, teachers must determine how, why, and for what objectives different pieces of hardware and software should be used pedagogically.

The indicators "I set up assignments that require students to use digital means to communicate and collaborate or with an outside audience" (mean = 4.92, SD = 0.278) and "Ensure that students have the necessary devices, software, and internet connectivity to engage with ICT" (mean = 4.91, SD = 0.317) also show good performance. These show the instructors' efforts to ensure fair access to digital resources and to foster collaboration. But indicators like "I teach students how to behave safely and responsibly online" (mean = 4.89, SD = 0.384) and "Foster a classroom culture where learners feel comfortable experimenting with technology without fear of failure" (mean = 4.88, SD = 0.357) highlight how important it is to create a supportive and safe digital learning environment. The indication with the lowest rating, "I teach learners how to assess the reliability of information and to identify misinformation and bias" (mean = 4.80, SD = 0.422), is still quite high, but it points to a place where educators may help students develop their media literacy and critical thinking skills.

These metrics highlight educators' strong dedication to fostering teamwork, guaranteeing technological access, and establishing encouraging learning environments. They also point out areas where learners' critical thinking, media literacy, and digital citizenship can be further improved with ongoing attention. Enhancing students' critical thinking and media literacy abilities in this area may help them better navigate the complicated and frequently deceptive internet information environment. This gives educators a chance to improve their methods for developing digital literacy and assisting students in becoming not only adept technology users but also educated and astute digital citizens.

According to Esteve-Mon, Llopis-Nebot, and Adell-Segura (2020), digital literacy is a crucial skill for enabling civic engagement in a digital age. Since the final ten years of the twentieth century, it has emerged as a crucial part of instruction in the domains of open, remote, and digital learning at all educational levels. There are many international, national, and even local frameworks to promote, evaluate, and certify digital literacy, as there isn't yet a single, widely accepted definition in the literature. This is especially true when considering educators and students at different educational levels, as well as the perspective of citizens.

Furthermore, Sanz-Cervera et al. (2021) maintain that the distinctive feature of digital teaching competency is that it "is a complex pedagogical concept that involves a series of dimensions and aspects linked to forms of pedagogical representation of technology in the classroom, learning, and teacher training."

Table 11 shows the test of the significant relationship between the digital competency and digital literacy of the teacher.

Table 11. *Examine the noteworthy correlation between the instructor's digital literacy and digital competency*.

Variable	*r*	*p-value*	*Interpretation*
Comprehending Digital Practices	.223	.014	Significant
Locating Data	.329	.000	Significant
Making Use of Information	-.172	.062	Not Significant
Information Creation	-.219	.016	Significant
Overall	.203	.026	Significant

The findings of the analysis examining the connection between teachers' digital literacy and competence are shown in Table 12, which also sheds light on the ways in which different facets of digital literacy are linked to overall digital competency. Understanding Digital Practices (r =.223, p-value =.014) demonstrates a strong positive correlation, suggesting that teachers' total digital competency rises as they gain a deeper comprehension of digital practices. This implies that teachers are more likely to exhibit a better degree of digital competence if they are more informed about digital technologies, online behaviors, and digital norms. These results highlight how crucial it is to have a solid theoretical framework for digital practices in order to use technology in the classroom successfully.

Finding Information also shows a significant positive correlation (r =.329, p-value =.000), supporting the notion that a greater degree of digital proficiency is associated with the ability to locate digital information. Teachers are likely to be more skilled at utilizing technology to accomplish educational objectives and improve students' learning if they can navigate digital platforms and locate correct, pertinent information.

Nevertheless, the use of information (r = -.172, p-value =.062) indicates a non-significant link, indicating that teachers' total digital competency is not significantly impacted by how they use information. Teachers may find it easy to locate and access material, but they may not be using it in ways that directly affect their performance as teachers or their level of digital competency. To better

understand how instructors interact with and use digital material in the classroom, more research could be required.

It's interesting to note that there is a substantial negative correlation between creating information (r = -.219, p-value =.016) and digital competence, indicating that a greater emphasis on digital content creation does not always translate into more digital competency. This may suggest that although producing material is a crucial component of digital literacy, educators may encounter difficulties converting their artistic output into practical proficiency in incorporating digital tools into their lesson plans. To determine whether this inverse association indicates a gap between the production of content and the effective implementation of technology in the classroom, further investigation is required.

Lastly, a strong, favorable relationship between digital literacy among educators and competence is shown by the overall result (r =.203, p-value =.026), demonstrating that increased digital literacy typically results in increased digital competence. Higher levels of digital literacy among teachers increase the likelihood that they will use digital technologies in their instruction, which will improve student learning. As a result, the null hypothesis is disproved, supporting the finding that teachers' digital competency is significantly predicted by their level of digital literacy.

In addition to highlighting particular domains—like information retrieval—where instructors with greater proficiency in digital practices exhibit superior competency, these findings underscore the significance of digital literacy in augmenting educators' digital competency. Future research is necessary to fully comprehend the complex factors influencing teachers' overall digital proficiency, though, as the interaction between information utilization and content creation presents opportunities.

The results are consistent with those of Abella and Dela Rosa (2023), who evaluated Filipino teachers' digital literacy (DL) and digital competence (DC) and determined the elements that affect their growth. The study involved 274 individuals, and the data were analyzed using both descriptive and inferential statistics. Less than ten-year-experienced teachers demonstrated higher levels of digital literacy. Additionally, there was a strong correlation between DL and DC and pre-service training, access to ICT resources, and a favorable attitude toward ICT use.

Additionally, Reblinca (2024) investigated the connection between students' digital literacy and teachers' proficiency in the digital world. Using descriptive-comparative methodologies, the study concentrated on junior and senior high school pupils in Camarines Norte as well as their teachers. According to the study, educators have a high degree of digital competency in managing and creating material. Students' ICT and information literacy were at a moderate level, despite their strong media literacy. In this case, teachers' digital competencies do not affect students' digital literacy, as the study discovered no significant differences between students' and teachers' digital literacy.

Conclusions

In light of the study's findings, the following conclusions were drawn:

The one that significant progress educators have made in their digital literacy is emphasized. This level of competence shows not only their technical know-how but also their commitment to using digital resources to improve their professional practices and their students' learning results. Consequently, educators with a high degree of digital literacy are better able to handle the demands of a learning environment that is becoming more and more digital. In order to maintain teachers' proficiency with new technologies in the classroom, it is also stressed how important it is for them to continue their professional development.

The evaluation of teachers' digital competency shows that they are highly proficient in a number of crucial areas, such as digital resources, teaching and learning, evaluation, professional involvement, empowering and assisting students, and more. Teachers are steadfast in their resolve to embrace technology to enhance the teaching and learning process, employ it for professional cooperation, and create and use digital resources effectively. Their assessment proficiency demonstrates their ability to leverage digital platforms for efficient and customized evaluation, and their efforts to empower and support students show their dedication to fostering a welcoming, inclusive, and stimulating online learning environment.

According to the findings, increasing teachers' overall level of digital competency requires a strong emphasis on fostering digital literacy. When educators possess a comprehensive understanding of digital practices and are adept at locating and creating information, they can more effectively integrate technology into the classroom and enhance teaching and learning results. Ongoing professional development in digital literacy is essential for teachers to greatly improve their ability to use technology in ways that further their professional development and raise student engagement. Ultimately, the positive relationship between competency and digital literacy highlights the significance of digital skills in producing successful, modern educators. Consequently, it is disproved that there is no meaningful connection between the digital competency and literacy of an educator.

The following recommendations are made in light of the findings and conclusions:

Instructors may still receive assistance in incorporating new digital resources and tools into their lesson plans. Technology will improve learning rather than become a distraction if specific training is given on how to match digital tools with educational objectives. Offering chances for ongoing professional development is essential to ensuring that educators remain current with the newest digital tools and instructional innovations. Workshops, webinars, and collaborative learning communities are a few examples of this, where educators

may exchange best practices and learn about new technologies.

Creating collaborative platforms where educators can exchange experiences, best practices, and difficulties pertaining to digital integration may help to reinforce their strong commitment to utilizing digital technologies for professional cooperation. Teachers will benefit from learning from one another and staying current with the newest developments in educational technology if schools or districts are encouraged to establish digital communities. Given the high degree of proficiency teachers exhibit in producing and utilizing digital resources, it is imperative that training programs that emphasize the creation of varied and superior digital content be maintained. Teachers will be able to give interesting, relevant content and accommodate a variety of learning styles thanks to workshops on creating multimedia resources, interactive materials, and adaptive learning technologies.

Teachers may be encouraged to investigate interdisciplinary applications of technology, which would enable them to incorporate digital resources and tools into a variety of topic areas. Programs for professional development. The versatility of digital technologies, such as data analysis, simulations, and multimedia resources, should be heavily emphasized.

In addition to improving their teaching methods and student engagement, this will give teachers the confidence they need to use technology in a variety of settings. Digital competency and literacy highlight the value of ongoing professional development. Regular training sessions, workshops, and webinars centered on digital literacy should be offered by educational institutions such as schools to assist instructors in staying current with the newest tools, trends, and optimal technological techniques.

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