Digital Literacy and Digital Competence Of Teaching And Non-Teaching Staff Of Samal Island Colleges

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Abstract

The study aimed to determine the relationship between digital literacy and digital competence of teaching and non-teaching staff in Samal Island Colleges. A descriptive-correlational design was used in this study. The researchers used Mean, Pearson r, and multiple regression analysis, hence, the study used a total population sampling in 108 respondents. Moreover, results revealed that the digital literacy and digital competence of teaching and non-teaching staff of Samal Island Colleges obtained a high mean score. This means that institutions were able to prioritize and provide adequate training to all staff, enabling them to adapt to new societal and technological trends. Furthermore, there is a significant relationship between the digital literacy and digital competence. In addition, critical thinking and communication skills are the best predictors in digital competence. Consequently, the integration of technology in teaching and the workplace has made tasks easier and more efficient.

Keywords: *digital literacy, digital competence, teaching and non-teaching staff, descriptive-correlational, multiple regression analysis*

INTRODUCTION

The rise of modern digitalization has led to a more intricate school setting, with digital technologies taking on a crucial role in daily educational activities. Consequently, educators find themselves compelled to reevaluate and adapt conventional teaching methods through the integration of technology (Hatlevik & Christophersen, 2013). In addition, many authors mentioned in their articles the problem that the majority of teachers in their countries still lack or seem to lack the necessary skills for using technology effectively, at least in their teaching (e.g., Orlando, 2009; Rochanasmita et al., 2009; Špernjak et al., 2009). In his critical analysis, a lack of "direct correspondence between the interests of school authorities, policy-makers, and IT firms and the micro-level behaviors of teachers and students" emerges (Selwyn, Citation 2010, p. 103), and this discrepancy between levels adds to the complexity of teachers' professional digital competence and classroom teaching.

Furthermore, Rust and Whalen (2020) critically revealed that teachers felt overwhelmed and unprepared to use online or remote teaching strategies and methods, and they found it challenging to adapt their pedagogy to problematic such as students' unreliable internet access, changing personal needs, and unclear or shifting educational or governmental directives. Likewise, other research claimed that pre-service teachers are expected to be proficient in using

information and communication technology for teaching and learning; still, the use of ICT in the classroom remains below expectations (Gill et al., 2015; Tondeur et al., 2017).

Furthermore, students can easily access various online and social media platforms for learning. However, this accessibility does not always guarantee effective student learning outcomes. This is because learning can only occur with reflection from the instructor or other adults present with the students (Wardana et al., 2022). Thus, Tammaro and D'Alessio (2016) added that there is a focus on the need for teachers to receive complete digital competency training that goes beyond the fundamentals of ICT abilities. In addition, Ristianti (2022) stated that it centers on the digital competency of guidance and counseling instructors, indicating that their proficiency falls within the moderate range, implying the necessity for further enhancement.

Subsequently, the importance of attaining and demonstrating digital competence in educators and support personnel stresses the requirement for comprehensive training, proficient communication, and the effective utilization of digital tools in the educational setting. In Garzón-Artacho 2021, an investigation delves into the extent of digital proficiency exhibited by teachers engaged in lifelong learning. Moreover, Sharma (2022) highlighted the importance of teachers being cognizant of digital literacy and competence when establishing a digital atmosphere within the classroom. Ramadhan (2019) underscored the significance of teachers' proficiency in harnessing digital media literacy for beneficial educational outcomes. Zakharov et al. (2022) pointed out that teachers exhibit more excellent proficiency in content and evaluation but lag in their proficiency regarding digital resource technology and administration.

Martin and Grudziecki (2006) also clarify the connection between digital competence and digital literacy, arguing that digital competence is rooted in digital literacy. The European Commission 2013 introduced a Digital Competence Framework encompassing five areas and 21 competencies, incorporating the concept of digital literacy (Ferrari, 2013). Policy documents at a systemic level consistently highlight the imperative to invest in enhancing digital skills for economic growth and competitiveness (European Commission, 2010). In addition, the argument has been made that the competencies crucial for sustainable development and social cohesion encompass knowledge, skills, attitudes, and values across the entire population (OECD, 2014, p. 4). UNESCO, in 2008, launched a policy document titled "ICT Competency Standards for Teachers," focusing on teacher education and digital literacy without providing explicit definitions for the concepts (UNESCO, 2008). In Sweden, digital competence is a foundational concept in the recently initiated national strategy for digitizing education (Swedish Ministry of Education, 2017).

This research is anchored on Paul Gilster's theory in 1997 called digital literacy theory, which posited that digital competence involves the ability to comprehend and utilize information across various formats from diverse sources, mainly when presented through computers. Gilster's theory underscores the adaptation of skills to a novel medium, implying that our internet experience depends on mastering its competencies (Joosten et al., 2013). This indicates that digital literacy, akin to media and computer literacy, stems from a skill-oriented interpretation, highlighting its connection to the practical use of technology and skills adaptation, as Gourlay et al. (2014) argued. Moreover, this study employs the Technological, Pedagogical, and Content Knowledge (TPACK) framework proposed by Mishra and Koehler (2006), along with the notion of computer self-efficacy (CSE) pioneered by Compeau and Higgins (1995), to explore different aspects of how teacher educators utilize digital tools and the essential skills needed for digital competence in higher education. The TPACK model comprises three knowledge domains: pedagogical knowledge (PK), technical knowledge (TK), and content knowledge (CK), along with the crucial interplay among these domains. The more these three domains intersect, the better the foundation for effective teaching with digital tools (Koehler et al., 2013).

In this study, the independent variable is digital literacy by Chen (2015) operationalized digital literacy by creating and validating digital literacy, which is underpinned by a theoretical framework comprising nine dimensions: communication, collaboration, critical thinking,

creativity, citizenship, character, curation, copyright, and connectedness. Alternatively, the dependent variable is the digital competence of CDCFT, as published by (INTEF, 2017), which is divided into five areas: information and data literacy, communication and collaboration, digital content creation, safety, and problem-solving.

The rapid expansion of issues, models, and discrepancies in the skills of university educators necessitates an evaluation of digital competency. This research explicitly determines the significant relationship between digital literacy and digital competence of UM Peñaplata College teaching and non-teaching personnel since no study has been conducted yet. Thus, the latest research on the digital competence of university teachers in the international context will be carried out in this area to delve into teachers' training needs in the digital era.

The primary goal of this study is to determine the relationship between digital literacy and digital competence among Samal Island teaching and non-teaching staff. The study seeks to answer the following questions:

1. What is the level of digital literacy of teaching and non-teaching staff of Samal Island Colleges in terms of:

   1.1 communication;
   1.2 copyright;
   1.2 critical thinking;
   1.4 character;
   1.5 citizenship;
   1.6 curation;
   1.7 connectedness;
   1.8 creativity; and
   1.9 collaboration?

2. What is the level of digital competence of teaching and non-teaching staff of Samal Island Colleges in terms of:
   2.1 information and data literacy;
   2.2 communication and collaboration;
   2.3 digital content creation;
   2.4 safety; and
   2.5 problem solving?

3. Is there a significant relationship between digital literacy and the digital competence of teaching and non-teaching staff of Samal Island Colleges?

4. Which digital literacy impacts the digital competence of teaching and non-teaching staff of Samal Island Colleges?

From a global perspective, this study could tackle the urgent issues regarding the impact of digital literacy on the digital competence of both teaching and non-teaching staff at Samal Island City College. These influences in digital literacy have provided the teaching and non-teaching staff with an excellent digital competence to tap into the 21st century and to satisfy and provide the student's needs. As such, the data of this study justify the stance that digital literacy proficiency can greatly help teaching and non-teaching staff develop their digital competence.

Moreover, it will help school administrators and teaching and non-teaching staff recognize the influence of digital literacy on digital competence; many teachers and non-teaching staff also instinctively recognize its importance to their digital skills. This research provides a

sufficient description of how digital literacy influences the digital competence of teaching and non-teaching staff. On a micro-scale, this study will benefit relevant persons such as teachers, non-teaching staff, and students. Furthermore, the findings can be used to undertake a related study for future researchers of digital skills, focusing on the mediating influence of digital literacy on digital competence.

The results of this study can help the teaching and non-teaching staff, school administrators, and researchers since the findings of this study will give them new information on planning and implementing new methodologies based on the recommendations. It will also give them a clearer picture of enhancing their digital skills that satisfy the students' needs in the 21st century. Further, it can help them understand how students behave when using existing technologies like gadgets. Additionally, teaching and non-teaching staff will better understand the factors that could influence their digital competence. It will help them understand how organizational infrastructures and strategic leadership contribute to digital literacy proficiency.

METHODS

The research methods the researcher employed to carry out the study are presented in this section, including the research design, research respondents, research instrument, data collection, statistical tools, and ethical issues.

Research Respondents. The study employed total population sampling, resulting in 38 teaching and non-teaching staff from UM Penaplata and 74 teaching and non-teaching staff from Samal Island City College, for 108 teaching and non-teaching staff in both schools. Moreover, according to Sekaran and Bougie (2016, cited in Memon et al., 2020) and Roscoe (1975), a set of standards for selecting sample sizes has been popular in recent decades. Whether the staff were teaching or non-teaching, part-time, full-time, or had a job order status, they were included in our study as long as they were employees at UM Penaplata and Samal Island City College. Thus, a sample size greater than 30 but less than 500 was appropriate for most behavioral investigations. The respondents could withdraw their consent and discontinue participating without penalty when any ethical considerations were debased.

Materials and Instrument. The initial section of the survey drew inspiration from Chen's (2015) study, focusing on the independent variable, digital literacy. The subsequent section, addressing digital competence, was adapted and modified from the CDCFT study published by INTEF in 2017. To guarantee the contextual relevance, validity, and reliability of the questions and items for the particular population or research context, the researchers took measures to ensure accurate and effective data collection and analysis.

The researchers employed a questionnaire to gather data for the study to elicit responses pertinent to the research problem. They modified the questionnaire as a foundation for their survey. Their investigation used a 5-point Likert scale aligned with Emerson's (2017) definition, characterizing Likert scale questionnaires as widely used instruments for gauging attitudes or perceptions. These scales comprised items requiring scaled responses, with choices from least to most desirable coded numerically. Respondents selected the response that best mirrored their sentiment or perspective regarding the statement or question. The questionnaire comprised 91 statements for the dependent variable and 11 questions for the independent variable, totaling 102.

These sections were evaluated using a five-point Likert scale, where "option 1" indicated "strongly disagree" and "option 5" represented "strongly agree." This scale was utilized to measure the level of agreement or disagreement expressed by the respondents regarding each statement. Hence, the table below was the scale used to determine the digital literacy of the teaching and non-teaching staff of colleges in Samal Island.

Scale	Range of Means	Verbal Description	Interpretation
5	4.21-5.00	Very high	This suggests that digital literacy is always manifested.
4	3.51-4.20	High	This suggests that digital literacy is oftentimes manifested.
3	2.61-3.50	Moderate	This suggests that digital literacy is sometimes manifested.
2	1.81-2.60	Low	This suggests that digital literacy is occasionally manifested.
1	1.0-1.80	Very low	This suggests that digital literacy is never manifested.

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Design and Procedure. The approach used for this investigation was quantitative. To support and meet the goals of the study, the researchers tried to come up with solutions to the

problem that had been identified. The researchers will use a descriptive correlational study design. According to Bhat 2023, descriptive correlational research is a research strategy in which the researcher attempts to explain the correlation between one or more variables without making causal or effect claims. It entails gathering and evaluating data on at least two variables to see whether there is a relationship between them. Researchers do descriptive correlational research to collect data to explain the variables of interest and determine how they connect.

The key goal is to account for all variables and how they connect without altering them or implying that one thing affects another. Most academics believe that the least acceptable sample size for a correlational study is 30. Data from a sample of less than 30 people may provide an inaccurate measurement of the degree of connections (Wallen & Fraenkel, 2009: 335, as cited in Putra, 2017 & Kaya, 2021).

The researchers submitted a letter to the dean of UM Peñaplata College requesting permission to conduct the study. Following permission, the researchers wrote a letter to HRMD to allow us to conduct the study. Following approval, researchers conducted the survey right away. The researchers explained a few terms to the respondents so they could complete the questionnaires with an open mind. The researchers asked the respondents to be completely honest—a face-to-face survey used by the researchers. Once the respondents had finished the study, the researchers collected and tallied the pertinent statistical data. The researchers concluded and made recommendations for this study based on the facts.

The research team examined and interpreted the data to address the research questions. They utilized the following statistical instruments: Mean. Researchers used this to ascertain the level of digital literacy and digital competence of teaching and non-teaching staff of colleges in Samal Island. In addition, Pearson-r was utilized to assess the correlation between digital literacy and digital competence among teaching and non-teaching staff at colleges in Samal Island. Moreover, Regression Analysis was employed to determine how digital literacy influenced the digital competence of teaching and non-teaching staff of colleges in Samal Island.

Ethical Considerations. This study explored ethical inquiries and considerations prior to data collection. The panel members served as an ethics review commission, scrutinizing the researchers involved.

Voluntary Participation. The participants could choose not to participate in the study, which was done to preserve their privacy. Information was provided when respondents had questions about the survey or their decision to participate.

Privacy and Confidentiality. The study's records were kept private as much as was allowed by law. Any identifying information gathered for this study was kept confidential unless it was required to safeguard the rights or welfare of the respondents. The researchers reserved the right to withhold the details of their participation from parties unconnected to the study. When the findings of the study were published or presented at a conference, no private information was disclosed. The study complied with the provisions of the Data Privacy Act of 2012, enacted to protect respondents from unauthorized handling of their data and ensure that their responses remained anonymous. Furthermore, the respondents' identities were not disclosed in any form, and only the researchers had access to the specific responses provided by the respondents. All data collected for this study were kept confidential to uphold the rights of the respondents.

Recruitment. According to this ethical policy, the recruiting parties, particularly the researchers, handled any potential discomforts that the respondents might have felt while taking the survey by confirming their eligibility as recruiting parties and going over the degree of risks and steps to mitigate these risks (including physical, psychological, social, and economic risks).

Risks. No high-risk situations, such as community socioeconomic, psychological, or physical health issues, might have arisen in this study. Participants' rights in the study were preserved and respected.

Benefits. The researchers were also able to provide future researchers, particularly the readers, with generalized knowledge about the statistical consequences of the influence of digital

literacy on the digital competence of Samal Island Colleges' teaching and non-teaching staff. The study's conclusions could benefit anyone because they provided new insight into its numerical status.

Safety. In order to ensure the respondents' security, pseudonyms were used to hide their identities throughout the study. The survey results were kept private and only used to support the research findings.

Plagiarism. The researchers employed Turnitin software to avoid plagiarism and ensure that their work did not appear to have been submitted as someone else's. When merging ideas from many writers and experts, the researchers carefully adhered to a precise and appropriate reference style. Using the Turnitin and Grammarly tools, this work was verified for grammar and plagiarism. Because this study was based on several past examinations, the researchers ensured that no fiction was made using those works as inspiration. As a result, each item was discussed in detail and cited. Every single trustworthy journal or other scientific book was consulted for this study.

Fabrication. The data was recorded as accurately as was reasonably possible. Therefore, it was illegal to support false conclusions or create inaccurate data and findings purposefully. Nothing was published, and the information in the book was in disagreement.

Falsification. When there was no proof that the work had been intentionally altered to meet a model or theoretical premise, falsification was also considered. Any evidence supported no exaggerated or illogical claim.

Conflict of Interest. Because the researchers were UM Peñaplata College students studying teacher education, there was a conflict of interest. In order to avoid interrogating administrators and teachers, the researchers purposely ignored the COI. The respondents' well-being or the study's validity were two examples of core interests generally not expected to be impacted by a secondary goal, such as financial or academic advantages or recognitions.

Deceit. In the papers for this study, no unethical tactics were used to endanger the respondents' well-being. The expert group examined and verified every piece of material that was written. Additionally, it was shown that lying would be less harmful to the respondents than beneficial, discouraging lying.

Permission from Organization/Location. The researchers sought authorization from the educational institutions. They formally requested official consent from the institution or location of the study or where data were collected. Additionally, the researchers ensured that participants were fully informed about the potential benefits the school may derive from the study through informed consent, utilizing a simple and easy-to-understand survey questionnaire.

Authorship. The study was conducted with attention to authorship qualifications. The researchers significantly improved the concept, design, data collection, statistical analysis, and data interpretation with the help and direction of the research adviser. The researchers and the advisor contributed to the article's writing, which they then thoroughly intellectually revised. Both made contributions to the investigation that resulted in the study's publication.

RESULTS AND DISCUSSION

This portion discusses the findings and analysis of the questionnaire responses, focusing on meeting the study's goals. It begins by examining the digital literacy levels of teaching and non-teaching staff, then moves on to their digital competence. Finally, it investigates the relationship between digital literacy and competence among teaching and non-teaching staff and

conducts regression analysis to predict digital competence variables.

Digital Literacy of Teaching and Non-teaching Staff

Table 1 represents the Digital Literacy of Teaching and Non-teaching Staff of colleges in Samal Island. Variable one consists of nine indicators: communication, copyright, critical thinking, character, citizenship, curation, connectedness, creativity, and collaboration. It has an overall mean ($\bar{x}$ = 4.15, SD= 0.432) that was described as high; this suggests that teaching and non-teaching staff's digital literacy is often manifested. This underscores that they can type quickly using both hands and know how to write formal emails. Thus, teachers and staff are exposed to the technology and literate enough to navigate basic skills in information communication technology.

Among all the indicators, *citizenship* has the highest mean score, 4.51, and a standard deviation of 0.625. This indicates that teaching and non-teaching personnel respected the cultural differences in the online world and responded accordingly. Meanwhile, *creativity* has the lowest mean score of 3.45 and a standard deviation 1.049. Subsequently, they are all described as high and

Table 1. Digital literacy of teaching and non-teaching staff, n=108

Indicators	$\underline{x}$	SD
Communication	4.27	0.534
Copyright	4.49	0.575
Critical Thinking	4.18	0.622
Character	4.46	0.562
Citizenship	4.51	0.625
Curation	4.27	0.731
Connectedness	3.84	0.960
Creativity	3.45	1.049
Collaboration	3.88	0.917
Overall	**4.15**	**0.432**

interpreted and oftentimes manifested. Meanwhile, other indicators are also described as high.

The study of Christine Bruce supports the result that a high level of digital literacy enables a high level of competencies according to Bloom's taxonomy. In addition, Ng (2012) supports the idea that individuals with higher digital literacy find it easier to adapt to new developments. Teachers must have high digital literacy and digital pedagogical competencies.

Only if teachers have high digital literacy and digital pedagogical competence will they be able to organize the teaching environment by considering digital technologies (Aslan, 2021).

Level of Digital Competence of Teaching and Non-teaching Staff

Table 2 represents the digital competence of teaching and non-teaching staff of colleges in Samal Island. This comprises five indicators: information and data literacy, communication and collaboration, digital content creation, safety, and problem-solving. It revealed the overall mean ($\bar{x}$ = 4.08, SD= 0.428), suggesting that the level of digital competence is often manifested. This implies that teachers and staff can create and manage communication networks between colleagues where they communicate and share files. Moreover, they are also equipped and well-versed in navigating the system.

In addition*, information and data literacy* have the highest mean score, 4.29, and a standard deviation of 0.460, which is described as very high. *Problem-solving* has the lowest mean score of 3.89 and a standard deviation of 0.641 and is described as high and, thus, interpreted as oftentimes manifested. Further, *communication and collaboration* with a mean of 4.04, *digital content creation* with a mean of 4.10, and s*afety* with a mean of 4.10 belong high. This suggests that the level of digital competence of teaching and non-teaching staff is oftentimes manifested.

It is also parallel to the study of Guillén-Gámez et al. (2021), which showed that professionals in educational settings have a high level of digital competence. Moreover, this result corroborates the finding that all tutors provide support, even online, in the teaching-learning process at any education stage (Ripamonti et al., 2018). Having high digital competencies teachers will not only facilitate students'

Table 2. Digital competence of teaching and non-teaching staff, n=108

Indicators	$\underline{\textbf{x}}$	SD
Information and data literacy	4.29	0.460
Communication and Collaboration	4.04	0.520
Digital content creation	4.10	0.552
Safety	4.10	0.540
Problem-Solving	3.89	0.641
Overall	**4.08**	**0.428**

Significance Relationship Between Digital Literacy and Digital Competence

Table 3. Correlation Matrix of the Digital Literacy and Competence of Teaching and Non-Teaching Staff

Digital Literacy	Digital Competence					
	Information and data literacy	Communication and Collaboration	Digital content creation	Safety	Problem-Solving	Overall

Communication	.262**	.233*	.273**	.317**	.304**	.354**
Copyright	.325**	.187	.315**	.211*	.182	.304**
Critical thinking	.044	.022	.023	.078	.038	.052
Character	.129	.024	.163	.173	.043	.132
Citizenship	.337**	.093	.209*	.099	.130	.213*
Curation	.348**	.184	.153	.177	.217*	.269**
Connectedness	.076	.124	-.054	.114	.218*	.128
Creativity	-.027	.039	-.101	.085	.124	.036
Collaboration	.196*	.022	-.008	.210*	.148	.143
Overall	**.230***	**.127**	**.080**	**.180**	**.189**	**.204***

*$p<0.05$

Critical thinking, creativity, and character do not have a significant relationship with all the indicators of digital competence; this means that all indicators of digital competence are not dependent on *critical thinking, creativity, and character*. While *connectedness* and *problem-solving* are significant, *safety information and data literacy* depend on *collaboration*.

Moreover, the result is congruent with the study of Zakharov (2022), who claimed that research has consistently shown a positive relationship between digital literacy and teachers' digital competence. Hence, he found that teachers are most advanced in content and assessment, while digital resource technology and management are the least developed fields. Instefjord (2017) highlighted the role of teacher education in integrating professional digital competence. Sharma (2022) emphasized the significance of teachers' awareness of digital literacy and competence in creating a digital environment in the classroom. Koçoğlu (2023) further explored this relationship, finding that digital literacy positively influences the digital citizenship levels of STEM teacher candidates.

Subsequently, the findings of this study affirm Paul Gilster's digital literacy theory, which emphasizes the importance of comprehending and utilizing information across diverse sources and formats, mainly through computers. The results indicate a significant relationship between digital literacy and digital competence among teaching and non-teaching personnel at Samal Island Colleges. This correlation suggests that understanding digital literacy is crucial for achieving digital competence, as highlighted in Gilster's theory.

Regression Analysis for Variables Predicting Digital Competence

The data in Table 4 shows a significant influence of digital competence of teaching and non-teaching staff of colleges in Samal Island. The F-value of 2.768 is significant at $p<0.05$, which indicates a model fit. Also, the R-squared value 0.129 or 12.9% suggested that F, the variance in digital literacy, was attributed to the indicators of digital competence specified in the study. This means that 87.1% of the variance could be credited to other things that are already beyond the concern of this study.

Moreover, table 4 revealed that communication and critical thinking are the best indicators that influence digital competence, which suggests that it has

Table 4. Regression Analysis for Variables Predicting Digital Competence (n=108)

Variable	B	SE B	B

Communication	0.25	0.11	0.02*
Copyright	0.09	0.11	0.41
Critical thinking	-0.20	0.09	0.03*
Character	0.03	0.10	0.80
Citizenship	-0.002	0.10	0.98
Curation	0.11	0.08	0.17
Connectedness	0.05	0.06	0.43
Creativity	-0.03	0.06	0.60
Collaboration	0.01	0.06	0.82
R^2		0.129	
F		2.768**	

*$p<0.05$ **$p<0.01$.*

A positive influence on digital competence. Effective digital communication requires clarity, conciseness, and the ability to tailor messages to different audiences and platforms, often incorporating multimodal elements like text, images, and videos to enhance the message. Critical thinking synthesizes information from various digital sources, creating coherent and accurate interpretations of complex issues.

Additionally, research consistently shows a positive relationship between critical thinking and communication skills and digital competence among teachers. Xu (2019) found that interpersonal communication competence positively predicts digital citizenship, an essential aspect of digital competence. Similarly, Esteve-Mon (2020) and Hatlevik (2015) both identified a correlation between these skills and digital competence, with the latter also highlighting the role of motivation and family background. Svensson (2015) further underscores the importance of these skills, particularly in the context of teacher education. These findings collectively suggest that teachers' critical thinking and communication skills are strong predictors of digital competence.

CONCLUSION AND RECOMMENDATION

Conclusion

This section contains the conclusion and recommendation on digital literacy and digital competence of colleges in Samal Island. Also, it examines the statement and implications of the theory's confirmation in the present research.

The finding indicates that most teaching and non-teaching personnel know the consequences of using copyrighted work online without permission. Thus, they acknowledge the work of others by using collusion. Thus, they also know the policy on plagiarism and other software to check and avoid unintentional plagiarism. In addition, the personnel's digital competence is oftentimes evident. This underscores the ability to assess the information and resources discovered on the Internet and categorize them. In addition, they can modify various digital resources found on the Internet to suit their training requirements and are knowledgeable in using the Internet to seek out information and educational resources.

Based on the findings and discussion, the study revealed a significant relationship between digital literacy and digital competence of teaching and non-teaching personnel of colleges in Samal Island, suggesting that understanding literacy is vital for achieving digital competence. The findings underscore the importance of digital literacy across digital competence – information and data literacy, communication and collaboration, digital content creation, safety, and problem-solving.

Additionally, the regression analysis revealed that the best influences in digital literacy are communication and critical thinking. Therefore, it was concluded that personnel's digital literacy was best observed in communication and critical thinking. This means that teaching and non-teaching communicate well with their colleagues through online communication services where they exchange information. Thus, they actively collaborate and participate in it. Moreover, the study revealed that they find different pieces of information online and put them together to solve problems; their institution assigned them online activities relating to real-life situations.

Recommendation

Based on the findings of the study, it is evident that digital literacy is significantly associated with the digital competence of teaching and non-teaching staff of Samal Island Colleges. Thus, both variables obtain a high level of digital literacy and competence. Moreover, the researchers recommend that teachers maintain their digital literacy and competence. Likewise, teachers might attend training such as Technology Integration Training and School-based Training Programs that instructional technology coaches can lead to refresh their skills. They might want to provide access to mentorship and peer learning opportunities to encourage collaboration and knowledge sharing among teachers and staff.

Further, by being equipped in the 21st century, teachers and staff can ensure they meet the challenges of teaching in a digital age. Given the low results of the creativity on the digital literacy of teaching and non-teaching staff, the teacher may access various digital tools and resources to stimulate creativity by allowing them to explore different ways of integrating technology into their teaching. In addition, school administrators might integrate digital literacy training for teachers and staff for professional development initiatives, such as seminars on exploring creativity using technology. This training might equip teachers with the skills to effectively navigate digital tools and resources, critically evaluate online information, and integrate technology into their teaching practices.

For future researchers, it would be essential to explore a broader range of factors beyond digital literacy that can influence the digital competence of teaching and non-teaching staff of colleges in Samal Island. This could encompass variables such as gender, type of faculty, daily internet use, computer literacy, social network usage, and preferred tools for internet use. Understanding how these factors, such as organizational infrastructures and strategic leadership toward digital proficiency to contribute to digital competence interact with and influence each other, as well as their combined effect on digital competence, can provide valuable insights for teaching and non-teaching staff to give them new information in planning and implementing new methodologies

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