Globish (An English-Indonesian journal for English, Education and Culture
Vol. 14, No.2, July 2025, pp. 237-251
P-ISSN: 2301-9913, E-ISSN:2597-9132
DOI: http://dx.doi.org/10.31000/globish.v14i2.13624

Exploring Student Teachers' Current Digital Competencies for Navigating Digital Education

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Abstract

Along with the digital era enhancement, the criteria for qualified teachers to possess not only content and pedagogical knowledge but also technological competence. This study examined the digital competencies of 47 fifth-semester English education students at Sanata Dharma University. Grounded in the TPACK framework, this study explored student teachers' competencies to integrate technology into English language teaching. This study used a mixed-methods approach. The qualitative data showed that student teachers demonstrated an average digital competency score of 76.87 (SD = 9.73). Qualitative findings revealed that student teachers' digital competencies are shown through innovative teaching practices, information literacy and evaluation, collaboration and resource sharing, responsible technology use, and technical know-how. The study's insights are expected to inform curriculum makers, educators, and policymakers about the current state of digital competencies among future English student teachers, allowing more targeted improvements in teacher education programs.

Keywords: digital competency, student teacher, TPACK

How to Cite: Nernere, R.P., Kriswinahyu, A.D & Bram, B. (2025). Exploring student teachers' current digital competencies for navigating digital education. *Globish: An English-Indonesian Journal for English, Education, and Culture.* 14(2), 237-251. http://dx.doi.org/10.31000/globish.v14i2.13624

INTRODUCTION

The advancement of information and communication technology, or (ICT) for short, has become an essential part of human life. United Nations Conference on Trade and Development (United Nations Conference on Trade and Development (2020)) stated that the dramatic movement of technology has affected not only the area of the economy and society but also the field of education (Hasibuan et al., 2022). In Indonesia, this transformation is particularly appropriate as the country faces global challenges in the ever-expanding digital era. Therefore, education, as the nation hopes, is now expected to adapt to accommodate the needs of a society increasingly reliant on technology that is no longer avoidable (Hasibuan et al., 2022). In response to the growing digital era, the Indonesian government has taken steps to integrate technology into education, particularly in the classroom. The Ministry of Education and Culture has enacted policies to incorporate technology into education since 2004 (Mailizar & Fan, 2020). These policies reflect the government's commitment and empowerment to prepare Indonesian students with the necessary skills needed to thrive in a digital society.

Received March 20, 2025; Revised April 3, 2025; Accepted May 20, 2025

Alongside the growing digital era, a paradigm shift in teacher competencies has occurred. Teachers' qualifications have evolved and transformed. The qualifications now cover not only topic knowledge and pedagogy but also technology expertise. Currently, teachers are expected to comprehend the impact of technology on the content and its representation (Alnasib, 2022). The Technological Content Knowledge (TPACK) framework that was established by Mishra and Koehler in 2006, has become vital in assisting teacher preparation and pedagogy. The TPACK framework, a modified version of Shulman's (1986) Pedagogical Content Knowledge (PCK) framework, underlines the integration of three important knowledge areas.

- **Content Knowledge** (CK) refers to teachers' understanding of the subject that they are delivering.
- **Pedagogical Knowledge** (PK) refers to teachers' understanding of various instructional approaches, strategies, and methodologies to enhance students' learning process.
- **Technological Knowledge** (TK) refers to teachers' understanding of both traditional and modern technology that can be integrated into the classroom instruction.

Utilizing the TPACK framework in lesson planning and instruction enables teachers to integrate technology in a responsible and meaningful way within the classroom (Hasibuan et al., 2022). This combination supports teachers in developing competencies in addressing future challenges (Falloon, 2020). In addition to TPACK, there is an increasing need for teachers to develop digital competencies (Dias-Trindade et al., 2020). Digital competencies, including technology, information, digital, and ICT skills (Ferrari, 2013), are important for the effective implementation of the TPACK framework. In education, digital competencies are essential not only for learning but also for teaching. In the Indonesian context, teachers are expected to not only master their subject areas but also possess robust digital competencies to keep pace with global development (Fuaddudin, 2020).

The concept of digital competence is complex and extends beyond merely knowing how to operate hardware and software (Tomczyk, 2021). Various international organizations have developed a comprehensive framework for this idea. UNESCO, a specialized agency of the United Nations that aims to promote cooperation in the fields of education, science, culture, communication, and information, in 2018, proposed a more career-focused definition of digital competency through a comprehensive approach outlined in *"A Global Framework of Reference on Digital Literacy Skills for Indicator 4.4.2*.". It identified specific competency areas such as information and data literacy, communication and collaboration, digital content creation, safety, problem-solving, and career-related competencies. Table 1 illustrates the diverse and evolving skills associated with digital competencies required for digital engagement in the 21st century.

Table 1. UNESCO'S suggested Competency Areas and Competency Indicators for Digital Literacy in 2018 (Law et al., 2018)

Competency Area	Competency Indicators
1. Foundations of Hardware and Software	1.1 Turning on/ off and charging, locking devices 1.2 Managing user accounts and passwords
2. Information and Data Literacy	2.1 Browsing, searching, and filtering data, information and digital content 2.2 Evaluating data, information, and digital content 2.3 Managing data, information, and digital content
3. Communication and Collaboration	3.1 Interacting through digital technologies 3.2 Sharing through digital technologies 3.3 Engaging in citizenship through digital technologies 3.4 Collaborating through digital technologies 3.5 Netiquette 3.6 Managing Digital Identity
4. Digital content creation	4.1 Developing digital content 4.2 Integrating and re-elaborating digital content 4.3 Copyright and licenses 4.4 Programming
5. Safety	5.1 Protecting devices 5.2 Protecting personal data and privacy 5.3 Protecting health and well-being 5.4 Protecting the environment
6. Problem-solving	6.1 Solving technical problems 6.2 Identifying needs and technological responses 6.3 Creatively using digital technologies 6.4 Identifying Digital Competence Gaps
7. Career-related competences	7.1 Operating specialized hardware/ software for a particular field

Incorporating digital competencies into the TPACK framework is considered important, as these two elements are interrelated in enhancing teaching effectiveness in this digital age. The TPACK framework offers a theoretical model for integrating content, pedagogy, and technology, whereas digital competencies envision teachers with the practical skills necessary for creative and novel implementation of these concepts. Teachers who possess solid digital competencies can utilize technology to enhance the learning process, deliver accurate information, and design dynamic, engaging lessons for students (Silvana et al., 2019). In the 21st century, teachers need to demonstrate sophisticated digital competencies and readiness to incorporate technology into the classroom. This need becomes important for addressing the education needs of millennials and digital natives (Liza & Andriyanti, 2020).

English as a Foreign Language (EFL) teachers are increasingly integrating technology into their classrooms in the context of English education in Indonesia (Selpia & Purnawarman, 2021). However, both in-service and pre-service teachers often face difficulties in meeting the digital competency criteria important for effective education

in the 21st century (König et al., 2020; Martín-Párraga et al., 2022). Pre-service teachers who are often labelled as digital natives, do not necessarily possess the sophisticated digital skills necessary for 21st century education (König et al., 2020; Martín-Párraga et al., 2022). Research by Martín et al. (2020) found that while pre-service teachers consider themselves competent at using mobile phones and social media, their understanding of advanced ICT concepts, especially related to the integration of these devices into the classroom, is still insufficient. This problem is important in English teaching, where technological tools highly contribute to applying learning, improving collaboration, and saving time. Therefore, EFL teachers need to possess technical competency in ICT and the capacity to effectively incorporate digital tools into their pedagogical methods to address their problems (Guillén-Gámez et al., 2021).

Drawing from the literature review, the study investigated the perspectives of 5th-semester students of Language Education undergraduate program about their readiness to incorporate digital tools into English Language teaching while participating in a Digital Learning and Media Development course. This study aimed to investigate how 5th-semester student teachers assess their digital abilities and readiness to incorporate digital tools into English educational practices for effective digital education. Moreover, this study aims to identify gaps in training and understanding by examining self-reported preparedness, particularly in relation to the TPACK framework. The findings of this research are expected to contribute to the broader literature on preparing future English teachers for 21st century requirements of digital education, specifically within the Indonesian educational context.

RESEARCH METHOD

Research Method

This research examined students' views on their preparedness to incorporate technology in using digital tools into ELT practices. By leveraging a mixed-method approach, especially sequential explanatory design, this study combined quantitative data and followed by qualitative data. The integration of this design enabled the researchers to have a richer understanding from the participants' experiences, especially their challenges when integrating technology in their teaching. Drawn from that, the participants' preparedness were reflected.

Research Design

A sequential explanatory design was applied. In a way to provide a more comprehensive data result, this method design was employed (Creswell & Creswell, 2022). As the initial process, the quantitative involved collecting quantitative data using a self-assessed TPACK questionnaire and merging it with qualitative data from the semi-structured interviews. The aim of drawing the qualitative data was to complement the quantitative findings. It would confirm and elaborate further the initial quantitative findings from the participants.

Research Setting and Participants

The participants in this study were forty-seven undergraduate students of English Language Education Study Program of Sanata Dharma. This cohort were chosen purposively based on several specific criteria. Participants were selected within a particular characteristics to obtain comprehensive insights from 'knowledgeable people' who can offer relevant information related to the phenomenon (Cohen et al., 2007; Creswell & Clark, 2018). Eligible participants were those who are in their 5th-

semester students of ELESP Sanata Dharma enrolled in the Digital Learning and Media Development course. As the main criteria, they must have a background in using technology and be able to use technology into their teaching planning and practices. This criteria strategy allows the researchers to obtain the relevant information from the participants' perspectives in achieving the goal. Additionally, to maintain the ethical practice, a consent form was acquired before the questionnaire and interview were carried out. The participants were informed that their confidentiality would be protected by using pseudonyms. Lastly, they had the right to withdraw from the research at any stage.

Research Instruments and Data Gathering Technique

Within the sequential explanatory design, the quantitative data were collected as the initial process. In establishing the questionnaire, the researchers adhered to the TPACK framework as the main guideline. In particular, it consists of seven parts to assess students' foundational knowledge in various TPACK domains. It centres in measuring students' technological knowledge, content knowledge, pedagogical knowledge, pedagogical and content knowledge, technological content knowledge, technological pedagogical knowledge, and technological pedagogical content knowledge. The final questionnaire consisted of twenty-four closed-ended questions that had four possible answers: strongly disagree (1), disagree (2), agree (3), and strongly agree (4). Other than complying with the TPACK framework in developing the questionnaire, it was also adapted from the previously conducted study focusing on the development of an online questionnaire for measuring TPACK levels of EFL teachers (Surayya et al., 2023). The adapted questionnaire maintained the same number of statements as the original version. The refinement process included rephrasing the statements and adjusting it to the participants' current experiences. The questionnaire was selected because it provides a linear goal in drawing the students' baseline knowledge of TPACK, especially regarding the technology usage. Thus, the statements were customized by sticking to the participants' background experience to gather the relevant information to achieve the research goal.

The questionnaire was distributed with Google Forms to help the participants access the online questionnaire. The piloting stage of the instruments was not conducted due to the limited number of participants, time constraints, and the well-developed questionnaire items adapted from the previous study. For the next step, four students were interviewed to enrich the data collection. The interviewed participants were chosen based on three categories: highest, moderate, and low scores based on the initial questionnaire. This selection technique ensured that the selected participant would represent each category result. The semi-structured interview was conducted with open-ended questions to allow participants to express their ideas freely. In particular, this technique enables the interviewer to have the flexibility to adapt and modify the format or question during the interview (Ary et al., 2014). To obtain detailed and comprehensive results, additional questions were posed to the participants (Roberts, 2020). In designing the open-ended questions, the researchers followed the seven digital competency areas proposed by UNESCO in 2018. The data triangulation was verified as the two instruments were utilized. Furthermore, the credibility of the data was confirmed by completing member checking to the participants. It gave them the opportunity to recheck and validate the accuracy of the transcript.

Data Analysis

An online questionnaire was administered to collect the quantitative data. This study evaluated students' self-perceived TPACK levels. The result was analysed using descriptive statistics to outline and elaborate the students' existing competencies. The analysis focused on the central tendency (mean, median, and mode) and variability (standard deviation and range) to provide a summary over the self-perceived TPACK. The findings were displayed in tables to illustrate students' foundational knowledge in teaching practices.

To complement the quantitative data, thematic analysis was leveraged. It comprises six steps as follows, by having familiarization with the data, generating initial codes, identifying themes, reviewing themes, defining and naming themes, and producing a well-written report (Braun & Clarke, 2006). Familiarization of the data began by repeatedly listening to the recorded interview videos and reading the data to achieve deeper understanding. The second step was to develop codes based on these data. Developed codes were also reviewed and refined multiple times as the researchers scrutinised the data in detail. As a result, the choice of strong and relevant words for the code naming became crucial as it would influence the result analysis's quality in the next step (Naeem et al., 2023). The following step was completed by merging the interrelated codes into meaningful themes. The researchers in the fourth step still revisited and refined the themes (Dawadi, 2020). An expert professor of the concerned field evaluated the fixed themes to avoid bias and confirm that the themes drawn were relevant and represent the phenomenon. Final themes were fixed and defined, The last step involved presenting the result in a clear and well-written format. Relevant evidence of the themes from the data is provided, as well as an explanation of the interrelated codes of the theme (Braun & Clarke, 2006).

RESULTS AND DISCUSSION

Quantitative data analysis

Table 2. Descriptive Statistics for Student Teachers' Digital Competencies

Result Analysis	
Mean	76,87234043
Median	77
Mode	73
Standard Deviation	9,732547415
Range	46
Minimum	47
Maximum	93
Sum	3613
Count	47

The descriptive statistics of the student teachers' digital competencies showed a generally high level of ability, with a mean score of 76.87. The quantitative data were well uniformly distributed, as indicated by the median score of 77, which closely matches the mean. Additionally, the score that appeared the most frequently in the dataset is 73, which is the mode. Although many participants scored close to the mean, there is a noticeable range between the lowest and highest scores, as seen by the

standard deviation of 9.73, which indicated a significant degree of variability in the score. This difference was highlighted by the 46-point range, which was computed from a minimum score of 47 to a maximum score of 93.

Table 3. The highest mean score of each section from the TPACK questionnaire

No	Statement	Mean	SD
1.	I can use technology.	3.65	0.6
2.	I can use various ways and strategies to develop my understanding of English language content.	3.27	0.61
3.	I can add my knowledge about teaching techniques in digital learning classrooms.	3.15	0.5
4.	I can teach English content which is needed by the students.	3.19	0.67
5.	I can use technology as the media for me to learn my content knowledge.	3.46	0.54
6.	Online teaching and learning have made me think more deeply about how technology can affect the teaching approach I use in class.	3.29	0.62
7.	I can combine English language material, technology, and teaching approaches in my future/current classroom.	3.25	0.6

This study's TPACK questionnaire includes 27 statements that examine particular competencies within the Technological Pedagogical Content Knowledge (TPACK) paradigm. The questionnaire results provided important insights into the self-reported competencies of student teachers in diverse aspects of digital education, attributed to the integration of multiple elements of TPACK. Each statement possessed a mean score, indicating the participants' confidence levels in the various domains. The table above illustrated the statements with the highest mean score across the seven parts, suggesting areas where participants felt most confident.

As an instance, statement 1, *"I can use technology*," achieved the highest mean score of 3.65. This data indicated that the participants perceived themselves as the most proficient in utilizing technology. The standard deviation for this statement is 0.6, indicating a moderate degree of consistency in responses across the group. In contrast, Statement 3, "I can incorporate my knowledge about teaching techniques in digital learning classrooms," has the lowest mean score of 3.15. This data indicated that student teachers have lost confidence in this area relative to others, with a standard deviation of 0.5, implying some variability in replies.

Other statements, such as Statement 2, "*I can use various ways and strategies to develop my understanding of English language content*" and Statement 5, *"I can use technology as the media for me to learn my content knowledge"*, also showed relatively high mean scores of 3.27 and 3.46. These data signified that student teachers generally feel comfortable using technology to enhance both content knowledge and teaching strategies. The standard deviations for these statements are 0.61 and 0.54, respectively, indicating moderate variability in responses.

Analysing the scores, it is clear that the student teachers feel most confident in using technology, with *statement 1* receiving the highest mean score. This could imply that the participants have had significant exposure to technology and feel comfortable incorporating it into their teaching practices. However, areas such as *statement 3,* which

deals with integrating teaching techniques into digital classrooms, received the lowest mean score, implying that while student teachers feel competent in technology use, there may be challenges in applying this knowledge effectively within the context of teaching English.

Qualitative data analysis

After analysing the quantitative data, the researchers integrated the findings with qualitative data to provide a comprehensive understanding of how the 5th-semester student teachers perceive their current digital competencies and preparedness to integrate digital tools into English language teaching (ELT) to navigate digital education.

Innovative Teaching Practices

The interesting findings from the participants' interview were the way participants understood and considered their ability to create interactive and engaging online assessments highlighting key aspects of digital competencies in student teachers. The participants demonstrated their understanding of digital tools, and then introduced creative strategies to improve assessment in English learning, thus offering a more engaging and motivating learning experience for students (Arjulayana & Pujiati, 2025). The participants obtained their knowledge about digital tools and innovative strategies through the Digital Learning and Media Development (DLMD) course. The discussion of the DLMD course highlighted the importance of organized training programs in supporting student teachers to integrate digital tools into their educational practices, which results in improved teaching and learning outcomes. Mishra and Kohler (2006) claimed that in effective teaching with technology, it is important for teachers to understand the interconnections between technology, pedagogy, and content knowledge. The participants highlighted the importance of integrating digital tools learned from the DLMD course into their teaching and assessment to improve student engagement and motivation. Digital learning tools have proven the ability to boost motivation in EFL education by providing flexible and interactive solutions to overcome the challenges regarding online learning (Chicaiza et al., 2024; Cifuentes Rojas et al., 2024)**.** Moreover, the participants showed confidence in their ability to adapt and integrate various digital platforms into their teaching strategies, recognizing the evolving environment of technology in education.

"The DLMD course was a bridge. It helped me to cope with digital learning. I learned and discovered several digital tools and gamified platforms that supported English learning during the course. The DLMD course was indeed helpful to conduct engaging digital learning for students." - **Participant 1**

This DLMD course equipped students with various digital tools along with the procedures that can be utilized in English learning. This course has important practical implications for other courses such as microteaching that the participants were currently taking and PLP-PP that the participants will carry out in the next semester. The participants' efforts to integrate digital tools not only enhance students' learning experience but also prepared the participants for the changing landscape of education in the digital age. By becoming proficient in these digital tools as educational technology components, the participants, as future educators, will be better equipped to create more interactive and dynamic learning environments for students. Moreover, the skills

acquired in this course enabled the participants to adapt to new educational technologies as they emerge, ensuring their teaching methods remain relevant and effective in the long-term applications.

"There will be microteaching practice tomorrow. Every time I perform in the micro-teaching practice, I utilize technology and digital learning media, such as Quizizz, Word Wall, and so on." - **Participant 2**

"I have designed some quizzes through Quizizz. I tried using the newest feature of it called Mastery Peak. It was more fun than usual. However, I also use other applications like Word Wall." -**Participant 4**

Through the exploration of features through the exploration of features such as Mastery Peak on Quizizz, the participants effectively utilized modern educational technologies that enhance engagement and facilitate measurable learning outcomes. The participants' enthusiasm to engage with new features and tools highlighted an important element of the course's impact, which is cultivating a sense of flexibility and continuous learning within the teaching community. As these tools establish, the participants' capacity to incorporate new and emerging technologies into their teaching practices guarantees that their teaching techniques remain innovative and relevant during technological progress.

Furthermore, the participants' experiences in microteaching courses played a significant role in their professional development as English teachers in the digital age. The course motivated participants to engage with various digital learning platforms and to evaluate how these digital tools can address their students' educational needs. Micro-teaching courses lay a strong foundation for future instructional methods by connecting the practical application of digital tools to real-world classroom situations, fostering innovation and success in boosting student engagement and academic performance.

Information Literacy and Evaluation

In the context of information literacy and evaluation, the participants demonstrated some strategic ways when they were using digital tools. They showed the lengthy and detailed process of navigating the online space. Accordingly, digital literacy was considered as a pivotal skill for educators to critically assess the information that existed (Zaçellari & Reçi, 2024). In line with that claim, the participant also highlighted the importance of digital literacy in being the key tool for evaluating the relevance and the quality of digital resources for their teaching. Thus, the need for training digital literacy skills becomes paramount. This implies that educators are demanded to not only be skilled users but also have the skill to carefully assess the validity of information they obtained. In this framework, it is necessary for student teachers to polish their digital literacy because they are faced with evaluating the credibility, reliability, and relevance of information for their teaching. Mastering these skills is essential to enhance the learning quality of the students by using only the most relevant and credible resources used.

"I use some particular keywords when I explore things on the internet. As an example, I learned about the previous material in DLMD about making infographics. Afterwards, I will be looking for relevant information regarding the steps in making the infographic. I will search in Google the definition of infographic first."- **Participant 1**

"Besides evaluating its relevance for students, I also consider whether the video uses the voice from a native speaker. It usually influences the audibility of the sound. When the material uses a native speaker, I will use it. The other thing that I also considered was also the number of the viewers in a video." -**Participant 2**

Based on the excerpts, it was evident that the students used different strategies to find and assess information in the digital landscape. The capacity to find relevant and suitable keywords was classified as a key digital competency. By doing so, the efficiency and relevant process were influenced. This strategy implies that participants are equipped with deeper understanding in filtering and organizing information to meet the specific learning needs. Efficiency and effective process were achieved as the participant leveraged these strategies. It enhanced the quality of the materials as they saved their time in the preparation phase. Further, it was also mentioned that participants assessed the relevance of the information they discovered. As stressed by participant 2 who also considered whether the video used for the materials features a native speaker. It was done to determine the credibility and authenticity of the resource. From this, the importance of evaluating small details when judging whether digital content is reliable or not. It reflects the effort that goes beyond just searching for information. This aligns with the TPACK framework (Mishra & Koehler, 2006), which highlighted that educators require more than foundational digital skills. It is important for teachers to have the technological knowledge in assessing and integrating information critically.

The other significant component in digital competencies that the participants emphasized were the value of cross-referencing sources. In addition, their judgement also contributes to the evaluation phase in assessing information on the internet. Participants became cautious in filtering biased information and untrustworthy content in this era where content is easily manipulated. Building upon this, participants exhibited critical thinking by verifying information continuously from more than one source of the website. The report also pointed out the importance of integrity especially when dealing with information gained digitally. To preserve academic integrity and avoid inadvertent plagiarism, proper citation and acknowledgment of sources were considered crucial.

Collaboration and Sharing Resources

In today's modern classroom, teachers are not only expected to become more skilled at leveraging technology to enhance classroom learning but also in collaborating with peers and sharing resources. This collaborative approach contributes to their professional growth and equips them to model students how to use technology effectively (Selpia & Purnawarman, 2021). Most participants reflected good proficiency in the usage of digital technologies, as shown by their regular use of several cloud-based platforms. These collaborative platforms enable students to work on lesson plans, create teaching materials, and refine their digital skills simultaneously with their peers. Using these platforms creates a sense of shared learning and responsibility to contribute positively to online communities.

In exploring and developing materials using various digital platforms, the student teachers also highlighted the importance of managing their digital identities carefully in the online community. This is done to ensure that the data they submitted or accessed remains safe. As personal data becomes vital to be shared on online

platforms, the participants recognized the importance of protecting their personal information so that it can be used responsibly based on their digital activities.

"From my experience, how to collaborate using digital technology using Google Docs, after that if we need to discuss further, we can use Zoom or Google Meet. And in my opinion, if we need to make presentations or make posters at the same time, we usually use Canva."- **Participant 4**

"My friend and I usually use the same G-Drive, so we can access the material together. Because we are divided into two classes."-**Participant 3**

From the statements, it is evident that the participants demonstrated the practical use of digital tools to facilitate their collaboration with other people. With the help of online platforms such as Google Docs, Google Drive, Zoom, Google Meet, and also Canva can serve as some platforms that benefit them in conducting collaborative teamwork. This signifies that the integration of technology in today's education eliminates the value of distance and maximizes collaboration to take place anywhere and anytime (Fauzi et al., 2023). Flexibility eases teamwork and ensures that teaching materials are continuously updated and refined in real time. By sharing teaching materials through cloud-based services, future educators should not only improve their teaching practices, but also ensure that resources are easily accessible to others. The ability to quickly exchange and modify materials makes the teaching process more dynamic and responsive to the needs of students.

Responsible Technology Use and Technical Know-How

Responsible technology use and technical know-how are vital to effectively navigating today's digital landscape, both ethnically and efficiently. Participants in the study highlighted the importance of using technology and digital platforms with a focus on security, efficiency, and ethical considerations. This includes the act of selecting a safe and suitable platform to be used based on their needs and knowing how to protect both device and personal data.

"I usually use Perplexity. Perplexity AI makes it easier to find materials if, for example, it's not on Google or in the keywords I'm looking for, so it's easier." - **Participant 2**

"Okay, the first thing to look for is to use videos that have native speakers. Because there are animated ones, but they actually use robot dubbing. Well, that's not good. It also doesn't show the emotion of the sentence." - **Participant 2**

*"Well, I almost forgot to log out on WhatsApp and also Google, so it's like it could be easily hacked in my opinion. So remember to always log out and look at the places where we access anything on the internet that needs to be logged in."***- Participant 4**

Participants in this case had the awareness of being proactive about data security due to the growing reliance on digital technologies, especially when accessing and sharing resources across platforms. In addition to the security aspect, the student-teachers also stated that efficiency and relevance in selecting the appropriate digital tools contribute to the learning quality. For instance, the use of AI in exploring learning materials to be used. As participants exert extra effort to explore various materials for

learning, they view AI as an alternative tool that provides a shortcut, saving time while offering concise summaries of information tailored to their specific needs. Crucially, the ethical aspect becomes the main concern for participants. At this point, the ability to assess information becomes vital. Participants agreed that giving credit to other people's work becomes paramount as they adopt other people's works. This becomes relevant in the context of designing a material. The teacher, in this case, needs to make sure that the material given to the students also considers the ethical way of adopting a certain material.

The other aspect that also becomes the focus is choosing the quality of digital resources. In this case, one participant mentioned how crucial it is to give the students a good model of media. Using a native speaker in learning video materials becomes a must in providing students with a good quality learning experience instead of having video dubbed with a robot AI sound. By using high-quality and authentic content, the participants aimed to develop more meaningful and engaging materials for learning. From those examples, the participants indicated an awareness of not only choosing the right tools, but also cultivating their skills in using digital platforms responsibly and effectively. Lastly, critical digital literacy is also vital in identifying trustworthy materials in the midst of an extensive amount of information on digital platforms. Participants noted that they were gradually training their digital literacy in distinguishing credible sources and unreliable information. This aligns with the need for digital competence in selecting information and tools that serve educational purposes effectively (Alnasib, 2022; Antonietti et al., 2022).

CONCLUSION

This study explored the digital competencies of fifth-semester students regarding their readiness to incorporate digital tools into English Language Teaching. The findings indicated that while student teachers demonstrated confidence in utilizing technology for personal learning and content knowledge, they demonstrated uncertainty about its effective integration into pedagogical practices. Moreover, the findings of this study suggested needs for additional advancement in the integration of technology within educational practices. The qualitative findings highlighted significant themes, including innovative teaching practices, collaboration, and responsible technology use, with student teachers demonstrating creativity in their use of digital tools such as gamified platforms. Importance of formal training, particularly the Digital Learning and Media Development course, was emphasized in shaping these competencies. While students demonstrated a growing awareness of ethical technology use, the study highlighted the importance of refining teacher education programs to better equip future teachers with the skills to navigate the rapidly evolving digital landscape.

On the other hand, this study has limitations. The researchers did not include teaching practice assessment, which would have added objectivity to the data in this study. Further research could be suggested to include more objective measures, such as assessment and observation of students' teaching practice, to provide a more comprehensive evaluation of their digital competencies. Finally, it is suggested that curriculum developers and policymakers consider integrating courses such as Digital Learning and Media Development courses or similar workshops regularly to prepare student teachers with the necessary skills for effective technology integration in the classroom so that student teachers can meet the demands of modern digitized education.

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