

## AN EMPIRICAL INVESTIGATION OF EFL TEACHERS' DIGITAL COMPETENCES AND ITS PEDAGOGICAL APPLICATION

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| Article Info                                                                                                                                                                                                                                                                                                                                               | Abstract                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
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| <b>Article History</b><br>Received: March 2025<br>Revised: May 2025<br>Accepted: September 2025<br>Published: October 2025                                                                                                                                                                                                                                 | <i>In an increasingly digital age, the integration of technology into education has become imperative, particularly in the domain of English language teaching. This study focuses on evaluating the digital competence of Junior high schools English teachers, with a primary emphasis on their proficiency and efficacy in utilizing digital tools within their teaching practices. Utilizing a qualitative research methodology, the study employed a combination of questionnaires and semi-structured interviews to assess teachers' digital skills. The study explored six core competence areas as delineated by the Digital Competence Framework for Educators (DigCompEdu), which include professional engagement, digital resources, teaching and learning, assessment, empowering learners, and facilitating learners' digital competence. The analysis revealed that English teachers demonstrate commendable digital competence, predominantly classified as "Integrators" in five of the six DigCompEdu domains, and as "Experts" in the Empowering Learners domain. More experienced teachers showcase superior skills in personalizing learning and utilizing diverse digital tools like WhatsApp, Google Forms, Canva, and TikTok. Conversely, less experienced teachers primarily rely on conventional tools, highlighting the need for effective mentorship and structured guidance. The findings have significant implications for school leaders, policymakers, and teacher education institutions, advocating for mentorship systems, enhanced professional development programs that integrate pedagogical strategies, and practical training in adaptive digital resource development. Ultimately, this study emphasizes the necessity of ongoing support to foster sustainable digital competence in educators, contributing to the global discourse on digital pedagogy in 21st-century education.</i> |
| <b>Keywords</b><br>Digital competence;<br>Professional development;<br>Technology integration;<br>Language instructions;                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
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### INTRODUCTION

The integration of digital technologies in education has become increasingly essential, particularly in English Language Teaching (ELT). As observed by Sabari & Hashim (2023), there are many ways to integrate digital storytelling in English language teaching and learning to enhance the learners' proficiency, emphasizing the importance of teachers mastering online tools to bolster educational outcomes. This sentiment is echoed by (Peng et al., 2024), who found that the degree of digital competence is a significant factor in the successful implementation of teachers' ICT integration, indicating that educators must develop strong digital skills to navigate modern teaching environments effectively. In recent years, educators have faced mounting pressure to adapt to blended and online learning models, leading to a growing recognition that strong digital skills among teachers are fundamental.

Moreover, the shift toward hybrid learning environments necessitates that teachers stay informed and adaptable. Rasalli & Matore (2023) note that combined face-to-face and online teaching approaches are known as hybrid approaches, underscoring the need for educators to embrace and integrate these methods into their instructional practices. In the context of Indonesia, where digital technology integration into teaching is still developing, this becomes crucial. As indicated by (Li & Shang, 2023), the reasonable integration of digital methods can improve the limitations of traditional teaching approaches, highlighting the importance of adopting validated frameworks to assess and enhance teacher competence. While existing literature provides insight into digital pedagogy, particularly in Western contexts, researchers like Indriani et al. (2024) stress that there is a significant gap regarding how digital competence is shaped by local educational cultures and infrastructure. Thus, addressing these gaps through empirical research can substantially advance the understanding of teachers' preparedness to utilize digital technologies in ELT effectively.

In recent years, Indonesia has witnessed an increase in efforts to integrate technology into its educational systems, largely driven by national policies and educational reforms. The promotion of digital literacy among teachers has been underscored in these initiatives. For instance, Kartikawati and Nurhasanah (2024) articulate that teachers in today's digital era must have competence in the digital field so that they can become the main factor and play a role in education in Indonesia. This sentiment resonates across various studies which indicate that enhancing digital literacy is perceived as a pivotal move to modernize the educational landscape. Utami and Suastika (2023) emphasize that an effective development of digital learning media is necessary for enhancing teaching practices, with 87% of teachers in their analysis expressing the need for such resources that align with their skills and students' needs. Meanwhile, the significance of leveraging digital platforms is further corroborated by research findings which note that effective technology integration can lead to improved teaching outcomes (Permatasari et al., 2023).

Despite these advancements, a critical gap persists concerning the actual digital competence of teachers, particularly among public junior high school educators. Research by Damayanty and Sofyan (2023) indicates that the relationship between facilities, learning motivation, and parental involvement plays a considerable role in students' digital literacy. While many studies focus broadly on digital literacy, there is scant exploration of how English teachers at the secondary level utilize digital skills in their instructional practices. This lack of focus is concerning, especially as digital literacy remains a fundamental requirement for contemporary teaching. Furthermore Hanifah et al. (2024) reveal that the utilization of digital storytelling can enhance creative writing skills among students, thus implying that teachers' proficiency in digital tools directly influences pedagogical outcomes.

Moreover, the application of validated international frameworks to assess and develop digital competencies among educators in Indonesia has been alarmingly underexplored. A study by Sapparuddin et al. (2024) highlights that the utilization of structured professional development programs is crucial for upskilling teachers, which may include the integration of international standards for digital literacy. The urgency for frameworks is emphasized by the findings of Derder et al. (2023), which show that workshops and ongoing support are vital for both the adoption and effective use of digital tools within classroom settings. The current state of digital competence among teachers, particularly within the context of English language instruction, underscores a pressing need for targeted investigations and the establishment of comprehensive frameworks that address the unique challenges faced in Indonesian junior high schools.

The ongoing advancements in digital education in Indonesia necessitate a rigorous evaluation of educators' digital competencies, particularly within the realm of English language teaching. This study addresses the existing gap by applying the DigCompEdu framework, a comprehensive model developed by the European Commission specifically designed to assess educators' digital competence. This framework is not just universally applicable; it adapts well within the Indonesian context, offering insights into how English teachers incorporate digital tools into their pedagogical practices. As indicated by Al-Sindi et al. (2023), the integration of technology into classroom training can enhance engagement and support innovative teaching methodologies. This aligns with the global trend toward adopting structured frameworks like DigCompEdu to evaluate and improve teachers' capabilities in technology integration.

Employing the DigCompEdu framework fosters a structured approach to assessing English teachers' proficiency levels while simultaneously analyzing their pedagogical strategies related to technology use. Research suggests that integrating local cultural values within educational frameworks can enhance the relevance of learning materials, promoting both engagement and efficacy (Pratiwi, 2024). Additionally, the need for adaptation to region-specific challenges is underscored by Wahyuni et al. (Wahyuni et al., 2024), who advocate for the development of educational materials that are culturally relevant and tailored to meet the unique needs of Indonesian learners. Furthermore, Susrawan et al. (2024) note that incorporating 21st-century skills into textbooks empowers educators to transform traditional teaching approaches, reinforcing the importance of frameworks that adapt to local educational landscapes.

Moreover, applying the DigCompEdu framework in Indonesia allows for a comprehensive evaluation of not just digital skills but also the pedagogical methodologies employed by teachers in integrating technology. This relationship is crucial in the context of recent shifts toward digital methodologies in education, as highlighted in studies exploring the integration of digital content and innovative teaching strategies (Fernandez & Hadiyanti, 2023). This advancement contributes significantly to the existing literature by providing an empirical basis for evaluating technology adoption in language education within a specific Southeast Asian educational setting, effectively marrying global standards with local practices.

This study aims to analyze the digital competence of English teachers at *SMP Negeri 1 Palembang* and explore how they apply this competence in their teaching practices. Specifically, it seeks to answer the following questions: 1) what is the level of digital competence among English teachers at SMP Negeri 1 Palembang based on the DigCompEdu framework? and 2) how do these teachers apply their digital competence in their pedagogical practices?

## RESEARCH METHOD

### Research Design

This study adopts a qualitative research method to analyze and derive insights regarding the digital competence of English teachers, guided by the DigCompEdu framework, a recognized European standard designed to evaluate educators' digital skills. Qualitative methods, particularly semi-structured interviews and questionnaires, are essential for exploring the depth of teachers' abilities to integrate digital tools into their pedagogical practices. Previous studies, such as those by Aydın et al. (2024), reinforce this by emphasizing that qualitative research is particularly powerful in generating rich descriptions of complex educational phenomena, thus supporting the exploratory nature of this investigation.

A case study design is employed, which is well-supported in the recent literature. Moreira et al. (2023) assert that qualitative case studies provide comprehensive insights when examining specific issues within real-life contexts. Ličen & Prosen (2024) verifies that case studies allow

researchers to obtain an in-depth understanding of particular challenges faced by educators, thereby ensuring that the findings are grounded in the actual experiences of teachers navigating technology in their classrooms. By utilizing this approach, nuance and depth regarding the lived experiences of English teachers at SMP Negeri 1 Palembang can be critically analyzed.

### **Research Participants**

The research was conducted at SMP Negeri 1 Palembang, a school recognized for its effective integration of digital technology in teaching, making it an ideal setting for exploring the use of digital tools in education. The institution's reputation for leveraging technology reflects its commitment to modernizing teaching practices, aligning with broader educational trends toward digital learning environments. The study's participant pool consisted of all five English teachers at the school, all of whom were female. This gender-specific composition reflects the broader trend in many educational settings, but it is the variance in teaching experience among the teachers that provides a unique dimension to the study. The teachers' years of experience ranged from 26 years, with one teacher, to two and a half years with another. The remaining teachers had 20 years of teaching experience each. This wide range in tenure allows for a comparative analysis of how different levels of professional experience influence the adoption and use of digital technology in the classroom. Teachers with longer careers may have more traditional teaching practices, while newer educators may be more comfortable incorporating advanced digital tools. This diversity in experience thus ensures a broad and comprehensive perspective on how digital competence evolves throughout an educator's professional journey.

### **Instruments**

Data were collected through a structured questionnaire and semi-structured interviews. The questionnaire, adapted from Cabero-Almenara & Palacios-Rodríguez (2019), serves as a diagnostic tool aligned with the DigCompEdu framework to comprehensively map teachers' digital competencies. This instrument demonstrated high reliability (Cronbach's alpha of .91) and has been validated globally across various dimensions of digital competence (Seifert & Lindmeier, 2024). Closed-ended questions were designed to facilitate specific responses, utilizing multiple-choice formats where respondents could select options covering a comprehensive range of possible answers.

The questionnaire comprises 22 items categorized into six areas: professional engagement (items 1-4), digital resources (5-7), teaching and learning (8-11), assessment (12-14), empowering learners (15-17), and facilitating learners' digital competence (18-22). Including example items from each category will help clarify the types of inquiries posed to participants. Semi-structured interviews are employed as the primary qualitative data collection tool, consisting of seven questions structured into two categories—questions one to four addressing levels of digital competence, and questions five to seven focusing on integrating digital skills in teaching. A systematic explanation of how these questions were tailored to the research objectives will be articulated, enhancing the coherence of this methodological approach.

### **Data Analysis**

The data were analyzed both quantitatively and qualitatively. The quantitative method was used to assess the data obtained from the questionnaire. The qualitative method was used to interpret and describe the information obtained from the interview. The data from the questionnaire were analysed to determine the level of teachers' and students' digital competence. Descriptive statistics data analysis was used to analyze the data. In this data analysis, the data gains from the questionnaire were processed, calculated, and analyzed to determine the level of students' and

teachers' digital competence. The teachers were considered into 5 levels, they are Newcomer (A1), Explorer (A2), Integrator (B1), Expert (B2), and Leader (C1). These levels are based on the framework Digital Competence of Educators.

To analyze the interview data effectively, a structured process of transcription and thematic analysis was employed. Transcription, converting audio recordings into textual data, provided the foundation for subsequent analysis. Recordings were reviewed multiple times for accuracy, and transcriptions were shared with participants to enhance trustworthiness and validity. The analysis drew from Breslin et al. (2022), emphasizing Framework Analysis for managing qualitative data in collaborative settings. This involved an initial coding phase where qualitative data were deconstructed to identify key terms and concepts aligned with the research questions. In Vivo coding was utilized to maintain participants' authentic voices, allowing for a nuanced understanding of their experiences. Coded data were then grouped into categories based on recurring patterns, which helped in developing overarching themes that encapsulated participants' core experiences and perspectives. The findings were ultimately presented in a coherent narrative, synthesizing insights from coding, categorizing, and theme-building, thus illuminating key concepts central to the study.

## RESEARCH FINDING AND DISCUSSION

### Research Finding

The findings from the study provide a thorough analysis of the digital competence of English teachers, utilizing the DigCompEdu framework as the basis for evaluation. This framework, which is specifically designed to assess educators' proficiency in integrating digital technology into their teaching, allows for a detailed examination of teachers' capabilities across various dimensions. The study categorizes the results into different competency domains, such as digital resources, teaching and learning, assessment, and empowering learners, offering a structured way to evaluate how well teachers are integrating digital tools in each of these areas. This organization helps to identify strengths and areas for improvement in their digital practices, offering a nuanced understanding of their digital competence. The results, derived from the questionnaire responses, are clearly presented in Table 1, providing a visual representation of the data that allows for easy comparison and analysis of teachers' digital skills. This table serves as a key reference for understanding the current state of digital integration in the teachers' practices.

Table 1  
English Teachers' Professional Engagement Level

| No         | Statement                                                                                                                                                          | Mean | Remark     |
|------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|------------|
| 1          | Organizational communication: Systematic use of diverse digital channels in order to improve the communication with my students, their families and my co-workers. | 4.2  | Expert     |
| 2          | Professional collaboration: Use of digital technology in order to work with my co-workers inside and outside my institution (school).                              | 2.4  | Explorer   |
| 3          | Reflexive practice: Active development of digital competence for educators                                                                                         | 3.2  | Integrator |
| 4          | Digital CPD: Participation in online training courses.                                                                                                             | 3.4  | Integrator |
| Grand Mean |                                                                                                                                                                    | 3.3  | Integrator |

The analysis of English teachers' professional engagement level in terms of their digital competence reveals varied levels of expertise across different aspects. The highest level was

observed in organizational communication, with a mean score of 4.2, indicating that teachers are experts in systematically using diverse digital channels to enhance communication with students, their families, and colleagues. In contrast, professional collaboration, which involves utilizing digital technology to collaborate with colleagues inside and outside the school, scored the lowest with a mean of 2.4, placing teachers at the explorer level. This suggests a need for improvement in leveraging digital tools for collaborative purposes. For reflexive practice, where teachers actively develop their digital competence, the mean score of 3.2 positions them as integrators. Similarly, their participation in digital Continuing Professional Development (CPD), such as online training courses, also scored 3.4, reflecting the same integrator level. The overall grand mean of 3.3 categorizes the teachers as integrators in their professional engagement with digital technology. While they exhibit strengths in organizational communication, there is room for growth in professional collaboration to achieve a balanced and advanced level of digital competence across all areas. Furthermore, on the second area, digital resources level of English teachers can be seen on Table 2.

Table 2  
English Teachers' Digital Resources Level

| No         | Statement                                                                                                                                                      | Mean | Remark     |
|------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|------|------------|
| 1          | Selection: Use of different web sites and searching strategies to find and select a wide range of digital resources.                                           | 2.8  | Explorer   |
| 2          | Creating and modifying: Creation of their own digital resources and modification of the ones that already exist so they can be adapted to the teacher's needs. | 3.6  | Integrator |
| 3          | Managing, protecting and sharing: Protection of sensitive content.                                                                                             | 4.0  | Expert     |
| Grand Mean |                                                                                                                                                                | 3.5  | Integrator |

The analysis of English teachers' digital resources level reveals a range of competence across different areas. In terms of selection, which involves using various websites and search strategies to find and choose a broad range of digital resources, teachers scored a mean of 2.8, indicating they are at the explorer level. This suggests that while they are using some digital resources, they may not be fully proficient in utilizing advanced search techniques or accessing a wide variety of resources. However, in creating and modifying digital resources, teachers showed a higher level of competence, with a mean score of 3.6, placing them at the integrator level. This indicates that they are capable of not only creating their own resources but also modifying existing ones to better suit their teaching needs. The highest score was found in managing, protecting, and sharing digital content, where teachers earned a mean score of 4.0, categorizing them as experts in protecting sensitive content. This demonstrates their proficiency in ensuring the security and privacy of digital materials. Overall, the grand mean of 3.5 places teachers at the integrator level in terms of their digital resource usage, reflecting a strong capacity for creating and managing digital content, while also highlighting areas where further development in selection and exploration of digital resources can be beneficial. In the different area, English teachers' teaching and learning level can be seen on the Table 3.

Table 3  
English Teachers' Teaching and Learning Level

| No | Statement | Mean | Remark |
|----|-----------|------|--------|
|----|-----------|------|--------|

|            |                                                                                                                                                               |     |            |
|------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|------------|
| 1          | Teaching: Cautious consideration of when, where and why to use the digital technologies in class to ensure their added value is used to their whole capacity. | 3.2 | Integrator |
| 2          | Guidance: Supervision of the activities and interaction of the students in the online collaboration spaces that are being used                                | 4.2 | Expert     |
| 3          | Collaborative learning: Use of digital technologies to search and document knowledge between the students while they're working in teams                      | 3.8 | Integrator |
| 4          | Self-regulated learning: Use of digital technologies to help the students to plan, document and evaluate their own learning.                                  | 4.0 | Expert     |
| Grand Mean |                                                                                                                                                               | 3.8 | Integrator |

The analysis of English teachers' teaching and learning levels highlights varying degrees of digital technology integration across different aspects of teaching. In teaching, which involves carefully considering when, where, and why to use digital technologies in the classroom to maximize their values. This suggests that they are generally effective in using digital tools, though there may be further opportunities to optimize their use. In terms of guidance, which refers to supervising students' activities and interactions in online collaboration spaces, categorizing them as experts. This indicates a high level of proficiency in managing and guiding online student interactions to ensure productive and secure learning environments. Teachers also demonstrated strong competence in collaborative learning. This reflects their use of digital technologies to facilitate knowledge sharing and documentation among students working in teams, positioning them at the integrator level. Additionally, in self-regulated learning, which involves using digital tools to help students plan, document, and evaluate their own learning, teachers scored a mean of 4.0, placing them at the expert level. This suggests they are highly effective in promoting student autonomy and reflective learning using digital technologies. Additionally, for English teachers' assessment level can be seen on the table 4.

Table 4  
English Teachers' Assessment Level

| No         | Statement                                                                                                                                                                                                                                  | Mean | Remark     |
|------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|------------|
| 1          | Assessment strategies: Use of digital evaluation strategies to monitor the students' progress.                                                                                                                                             | 3.6  | Integrator |
| 2          | Analysis of work activities and test: Analysis of all the available data in order to identify the students that need additional support such as students at high risk of school dropout, low achievement, with learning disabilities, etc. | 3.8  | Integrator |
| 3          | Feedback and planning: Use of digital tools in order to give effective feedback                                                                                                                                                            | 3.6  | Integrator |
| Grand Mean |                                                                                                                                                                                                                                            | 3.7  | Integrator |

The analysis of English teachers' assessment levels reveals consistent integration of digital tools in various assessment-related activities. In terms of assessment strategies, which involves using digital evaluation methods to monitor students' progress, teachers scored a mean of 3.6, placing them at the integrator level. This indicates that they are proficient in utilizing digital tools for ongoing assessment, though there may still be room for further refinement. Regarding the analysis of work activities and tests, which entails reviewing available data to identify students who may require additional support. This suggests a strong capacity to analyze data and identify students' needs, positioning them at the integrator level in this area as well. In the area of feedback

and planning, where teachers use digital tools to provide effective feedback to students and it indicates a solid level of competency in delivering feedback using digital resources. Moreover, in the terms of Empowering learners, English teachers' level can be seen on Table 5.

Table 5  
English Teachers' Empowering Learners Level

| No         | Statement                                                                                                                                                                                                     | Mean | Remark |
|------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------|
| 1          | Accessibility and Inclusion: When the students receive digital tasks, the access to digital devices and resources are considered, as well as connectivity problems or low digital competence in the students. | 4.4  | Expert |
| 2          | Differentiation and personalization: Use of digital technologies in order to provide the students personalized learning opportunities.                                                                        | 4.8  | Expert |
| 3          | Actively engaging learners: Use of digital technologies so the students actively participate in class                                                                                                         | 4.2  | Expert |
| Grand Mean |                                                                                                                                                                                                               | 4.5  | Expert |

The analysis of English teachers' empowering learners level demonstrates a high level of proficiency in integrating digital technologies to support student engagement and inclusivity. In terms of accessibility and inclusion, which involves considering students' access to digital devices, resources, and potential connectivity issues, teachers scored a mean of 4.4, indicating their expert level in ensuring all students can engage with digital tasks regardless of these challenges. For differentiation and personalization, where digital technologies are used to tailor learning opportunities to individual students, teachers achieved a perfect score of 4.8, also categorizing them as experts in providing personalized learning experiences. In terms of actively engaging learners, where digital tools are used to ensure students participate actively in class, teachers scored 4.2, reflecting an expert level of competence in encouraging student participation through digital means. For the next area, English teachers' facilitating learners' digital competence level can be seen on Table 6.

Table 6  
English Teachers' Facilitating Learners' Digital Competence Level

| No         | Statement                                                                                                                                                                                | Mean | Remark     |
|------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|------------|
| 1          | Information and media literacy: Teaching the students how to evaluate the reliability of the information searched on line and to identify wrong/biased information                       | 3.6  | Integrator |
| 2          | Digital communication and collaboration: Proposing tasks that require the students to use digital media so they can communicate and collaborate between themselves or with other people. | 4.0  | Expert     |
| 3          | Content creation: Proposing tasks that require the students to create digital content.                                                                                                   | 3.8  | Integrator |
| 4          | Responsible use: Teaching the students how to behave online in a secure and responsible way                                                                                              | 3.2  | Integrator |
| 5          | Digital problem-solving: Encouraging the student to use digital technologies as a creative way of solving specific problems.                                                             | 3.8  | Integrator |
| Grand Mean |                                                                                                                                                                                          | 3.7  | Integrator |

The analysis of English teachers' role in facilitating learners' digital competence reveals a strong emphasis on integrating digital skills into the teaching process. In terms of information and media literacy, which involves teaching students how to evaluate the reliability of online information and identify biased or incorrect content, categorizing them as integrators. This

indicates that they are effectively guiding students in developing critical digital literacy skills. For digital communication and collaboration, where teachers propose tasks that encourage students to use digital media for communication and collaboration, placing them at the expert level. This reflects their high proficiency in fostering collaborative and communicative digital activities among students. Regarding content creation, which involves proposing tasks that require students to create digital content, positioning them at the integrator level. This suggests that they are moderately proficient in encouraging students to develop their digital creation skills. In responsible use, where teachers focus on guiding students to behave securely and responsibly online. Lastly, in digital problem-solving, where teachers encourage students to use digital technologies to creatively solve problems.

### **Utilization of Digital Tool for Communication**

The interviews revealed that all participating teachers utilize various digital tools to support media literacy among students and promote effective communication and collaboration within the classroom. Every teacher highlighted the significant role of WhatsApp in their communication strategies, indicating that “I usually use the WhatsApp application to communicate with students, parents, and colleagues. For example, if I am unable to attend class, I assign tasks via WhatsApp” (P1). This reliance on WhatsApp reflects the capabilities teachers possess in leveraging instant messaging for timely interactions, aligning with their scores in *Professional Engagement*, where the average score indicates a solid understanding and application of digital tools for communication. Comparatively, teachers with more extensive experience noted a broader range of digital tools, such as Zoom and Google Forms, stating, “I use many applications, such as WhatsApp, Zoom, Google Forms, and Google Meet” (P3). This use of multiple platforms is indicative of their comfort with technology and potential adaptability in their teaching methodologies, particularly in fostering collaborative and engaging learning environments.

### **Finding Modifying Digital Teaching Materials**

The analysis further illustrated the teachers' systematic approach to modifying digital teaching materials to enhance their clarity and relevance. For instance, one teacher stated, “I search for information on Google and customize it for student comprehension” (P1), showing their awareness of content accessibility. This reflects the *Digital Resources* domain, where the average score suggests that while they are effective integrators, there is an emerging awareness of the need for more advanced search strategies. Teachers with fewer years of experience tended to rely more on core materials provided by the school, while those with significant experience, such as twenty-plus years, showcased advanced modification techniques, including the use of Canva for visually engaging resources. They indicated, “I prefer using the Canva app for sourcing teaching materials... and evaluate and adapt this content to ensure it meets my students' needs” (P2). This highlights a growth trajectory among experienced teachers, reflecting their competencies in adapting resources not just for comprehensibility but also for engagement.

### **Ensuring Equal Access for All Students**

In striving to provide equitable access to educational materials, teachers expressed a commitment to standardizing teaching content while tailoring language complexity to suit diverse proficiency levels. For instance, one teacher pointed out, “The material for Chapter 3 in Class 7.1 is the same for all other Class 7 sections” (P1). However, adjustments in vocabulary were made based on the ability of the classes. This practice aligns with the study's overall findings in the *Facilitating Learners' Digital Competence* domain. Even though the teachers are rated as integrators, the qualitative feedback indicates a conscious effort to ensure inclusivity.

Teachers with varying levels of experience displayed diverse strategies; less experienced teachers emphasized maintaining consistency across materials, while seasoned educators reported refining their approach to better meet individual needs. This divergence showcases a clear need for mentorship programs to help novice teachers understand how to balance standardization with individualization effectively.

### **Digital Literacy and Interactive Media**

In terms of promoting digital literacy and engaging students through interactive media, teachers demonstrated varied levels of competence—from providing structured reading environments to integrating engaging tools like projectors and social media platforms. Quotes from teachers illuminate these practices, such as employing TikTok to connect lessons to student experiences. *“I connect lessons to students' experiences, such as encouraging them to explore recount texts on TikTok”* (P4), reveals the proactive strategies educators are using to enhance student engagement.

### **Teachers' Perspective on Digital Technology**

All participants shared a unanimous consensus regarding the critical role of digital technologies in contemporary education. As one teacher articulated, *“Digital tools are essential in today's context, enabling efficient communication”* (P2). This perspective highlights the foundational shift towards integrating technology into educational practices, underscoring how these tools facilitate effective learning environments. Experienced teachers elaborated on the challenges faced in embedding these technologies, often referencing their familiarity with various tools. Statements such as *“It makes it easier to deliver and provide teaching materials”* (P5) reflect not only an adaptation to current trends but also a broader understanding of technology's transformative potential in the classroom.

### **Planning and Using Digital Tool for Teaching**

Participants exhibit resourcefulness and creativity by employing digital tools to enhance their instructional methodologies. For instance, one teacher stated, *“With the help of Google, I search for incomplete materials that I can supplement”* (P1). Another teacher expressed a preference for more visually engaging materials by stating, *“I utilize Google to find supplementary materials and prefer Canva for its vibrant designs that engage students”* (P2). Interestingly, teachers with longer teaching tenures showcased a more strategic use of technology, pairing digital tools with student motivation tactics. One experienced teacher noted, *“I use TikTok for students to create videos and take advantage of Google Drive for them to submit their video and poster assignments”* (P4). This reflects a blend of creativity and effective communication through popular digital platforms, demonstrating a commitment to engaging students meaningfully. Newer teachers, while also competent, often relied on more conventional methods, primarily using Google Forms for assigning tasks and explaining instructions clearly as indicated: *“I directly give the assignment via Google Forms to the students and explain the instructions clearly”* (P3).

### **Digital Assessment and Feedback**

In examining the use of digital tools for assessments, the participants highlighted their efficacy, clarity, and the motivational aspects of providing feedback. One teacher remarked, *“We are provided with assessment files from the school, so I can automatically input them, such as through Google Forms”* (P1). This method not only streamlines the grading process but also reflects a significant improvement in managing student evaluations efficiently. Teachers noted that the automated features of Google Forms simplify traditional grading processes, stating, *“At this school, summative assessments are conducted via Google Forms, allowing mid-term and final*

*exam questions to be pre-loaded, with grades generated automatically”* (P2). This adaptability is particularly beneficial for teachers with substantial experience, allowing them to focus more on instructional quality rather than administrative burdens.

Furthermore, while all teachers recognized the value of efficient assessment tools, those with greater experience showed a more nuanced understanding of the importance of feedback: *“For feedback, I display test results to students, allowing them to identify correct answers, and we review the responses together for clarity”* (P3). The integration of feedback strategies, such as offering positive reinforcement to motivate students—*“I use Google Forms because it simplifies grading... I offer positive statements to ensure that students don't feel discouraged”* (P4, P5)—illustrates a commitment to cultivating a supportive learning environment.

## Discussion

The findings regarding the digital competence of English teachers at SMP Negeri 1 Palembang suggest that they have an average proficiency level categorized as "Integrator," indicated by a grand mean score of 3.7 across the six DigCompEdu domains. This aligns with research that highlights the increasing integration of digital technologies in education.

Digital competence is essential for effective teaching in the contemporary educational landscape. A study by Wu and Mao (2023) emphasizes the integral role that digital teaching competencies play in professional development, particularly in vocational contexts. The authors point out that effective use of various digital tools enhances teaching effectiveness and addresses diverse learning needs. This supports the observations from SMP Negeri 1 Palembang, demonstrating that teachers are confident and capable of meaningfully integrating technology into their pedagogical practices.

The high score in the "Empowering Learners" domain (4.5), categorizing teachers in the "Expert" category, reflects their exceptional ability to leverage technology to foster learner autonomy and individualized learning experiences. This observation aligns with findings by Ng et al. (2023), who stress that training in digital skills significantly empowers educators to better integrate technology into their methods, thereby enhancing student engagement. Furthermore, Sumarni et al. (2023) note that digital competence enables educators to create supportive environments that meet diverse student needs, reinforcing the ability of teachers at SMP Negeri 1 Palembang to utilize technological resources for improved educational outcomes.

In contrast, the lower mean score in the "Professional Engagement" domain (3.3) signals areas needing development. This indicates that while teachers can employ technology in their classrooms, there is a gap in their collaborative and reflective practices. Gutiérrez-Castillo et al. (2023) discuss the importance of fostering professional digital communities to enhance collaboration among educators and improve digital competencies. These insights imply that targeted training and development focused on professional engagement could elevate this domain to reflect the strengths observed in "Empowering Learners."

Experience is a vital factor influencing digital competence levels, as more experienced teachers demonstrate higher proficiency in utilizing a range of digital tools. This finding is consistent with broader literature that emphasizes the correlation between teacher experience and the effective integration of advanced pedagogical technology (Vieira et al., 2023). For instance, research by Torres et al. (2024) identified experience as a significant contributor to higher competence levels, suggesting that novice teachers could benefit from mentorship with seasoned professionals. Encouraging collaborative practices among teachers can support novice educators and foster a knowledgeable teaching community, enhancing overall educational quality at institutions like SMP Negeri 1 Palembang.

The findings on the integration of digital competence into pedagogical practices as observed among the teachers at SMP Negeri 1 Palembang underscore a multifaceted approach to utilizing technology in education. This integration spans communication, resource modification, differentiated instruction, assessment, and instructional planning, closely aligning with recognized educational frameworks.

In terms of communication and collaboration, the predominant use of platforms like WhatsApp by teachers indicates a widespread adoption of technology for timely interactions with students and parents. This practice not only facilitates connectivity but also enhances professional engagement, confirming observations from Malicsi's study, which emphasizes the role of digital communication tools in enhancing teachers' instructional capabilities (Malicsi, 2023). Furthermore, the confidence and adaptability of experienced teachers as they employ advanced tools like Zoom and Google Meet align with findings by Betancur-Chicué and Muñoz-Repiso (2023), who assert that effective use of digital technologies promotes enriched dialogue within educational communities. This demonstrates a clear movement toward higher competency levels among seasoned educators.

Regarding digital resource modification, a distinction between less experienced and senior teachers has emerged, with the latter displaying a greater capability to adapt materials creatively using tools such as Canva. This reflects a broader trend noted by Ducasse et al. (2023), emphasizing how technology can facilitate personalized and engaging learning experiences. Additionally, Wei et al. (2023) discuss the increasing importance of digital resources in vocational education, suggesting that they provide educators with more flexible and diverse learning pathways, which could enhance their ability to tailor content effectively.

The aspect of differentiated instruction resonated strongly during interviews, where teachers adjusted language complexity to cater to all learners, illustrating their commitment to equity. This aligns with the Facilitating Learners' Digital Competence domain, spotlighting the importance of inclusivity in instructional practices as supported by research indicating that technology can significantly enhance equity in education (Taufiqulloh et al., 2023). Though less experienced teachers showed awareness of inclusive practices, the capabilities of veteran teachers in implementing differentiated instruction effectively are noteworthy. However, relevant comparative studies directly contrasting the effectiveness of veteran versus novice teachers in this context were not found.

In terms of employing interactive media, the initiative to connect lessons with students' digital experiences through platforms like TikTok echoes findings by Maggio et al. (2025) regarding the motivational aspects of integrating engaging digital tools, though their specific focus on neuropsychological tests may not directly apply to general education settings. Hence, further verification of the applicability of their findings to this context is needed.

The effective use of tools like Google Forms for assessment further underscores the integration of technology in pedagogical practice. The shift from traditional to more formative assessment methods, where feedback is timely and supportive, reflects trends related to technology's role in enhancing educational assessment as discussed by Taufiqulloh et al., who highlight how technology-enhanced feedback can significantly elevate the quality of the learning experience for students (Taufiqulloh et al., 2023). Finally, teachers' resourcefulness in instructional planning, particularly in sourcing materials online, showcases a commitment to enhancing lesson quality through multimedia and engaging content. This approach aligns with findings from Sembiring and Sembiring (2024), indicating that effective integration of digital tools can improve educational outcomes.

## CONCLUSION

This study concludes that English teachers at SMP Negeri 1 Palembang exhibit a commendable level of digital competence, predominantly classified as "Integrators" across five of the six domains outlined in the DigCompEdu framework. Notably, these educators attain an "Expert" designation in the Empowering Learners domain, reflecting their proficiency in personalizing educational experiences and leveraging digital technologies to foster student engagement and collaboration.

The data further elucidate that more experienced teachers demonstrate enhanced digital skills, particularly in their capacity to tailor learning environments and utilize a diverse array of technological tools. This observation is substantiated by interview data, which reveal that teachers regularly employ digital platforms such as WhatsApp, Google Forms, Canva, and TikTok to augment communication, modify instructional materials, and provide timely assessments and feedback. Conversely, it is evident that less experienced teachers predominantly rely on conventional digital tools, underscoring the pressing need for effective mentorship and structured pedagogical guidance to develop their competencies in digital instruction.

The implications of these findings extend to significant discourses on digital pedagogy, especially within low- to middle-resource educational contexts. Firstly, it is imperative for school leaders to establish mentorship systems that facilitate collaborative partnerships between seasoned and novice teachers, thereby promoting the exchange of best practices in digital pedagogy. Secondly, policymakers should design and implement professional development programs that surpass mere technical training, encompassing pedagogical strategies for differentiated and inclusive digital instruction. Thirdly, teacher education institutions must integrate practical modules that emphasize the development of adaptive digital resources and the application of formative assessments utilizing digital methodologies. Lastly, this study underscores the critical need for ongoing, context-sensitive support in cultivating sustainable digital competence among educators, thus contributing meaningfully to global initiatives aimed at embedding digital pedagogy within the frameworks of 21st-century education.

## REERENCES

- Al-Sindi, T., Putra, H. D., & Ghazi, S. (2023). Integrating technology into classroom training. *Journal of Training, Education, Science and Technology*, 1-6. <https://doi.org/10.51629/jtest.v1i1.168>
- Aydın, M., Yıldırım, T., & Kuş, M. (2024). Teachers' digital competences: a scale construction and validation study. *Frontiers in Psychology*, 15, 1-13. <https://doi.org/10.3389/fpsyg.2024.1356573>
- Betancur-Chicué, V., & Muñoz-Repiso, A. G. (2023). Microlearning for the development of teachers' digital competence related to feedback and decision making. *Education Sciences*, 13(7), 1-13. <https://doi.org/10.3390/educsci13070722>
- Demir, O., Aslan, S. A., & Demir, M. (2022). Examining the relationship between teachers' lifelong learning tendencies and digital literacy levels. *Journal of Educational Technology and Online Learning*, 5(2), 379-392. <https://doi.org/10.31681/jetol.1034697>
- Derder, A., Sudaria, R., & Paglinawan, J. L. (2023). Digital infrastructure on teaching effectiveness of public-school teachers. *American Journal of Education and Practice*, 7(6), 1-13. <https://doi.org/10.47672/ajep.1719>

- Ducasse, A. M., Ferrero, C. L., & Girona, M. T. M. (2023). Technology-enabled higher education academic writing feedback: practices, needs and preferences. *Australasian Journal of Educational Technology*, 39(4), 48-73. <https://doi.org/10.14742/ajet.8557>
- Fernandez, L. D., & Hadiyanti, K. M. W. (2023). Pre-service teachers' digital competencies: a transformative medium toward language teaching. *Prosiding Konferensi Linguistik Tahunan Atma Jaya (KOLITA)*, 21(21), 215-223. <https://doi.org/10.25170/kolita.21.4852>
- Gutiérrez-Castillo, J. J., Palacios-Rodríguez, A., Párraga, L. M., & Hidalgo, M. S. (2023). Development of digital teaching competence: pilot experience and validation through expert judgment. *Education Sciences*, 13(5), 1-19. <https://doi.org/10.3390/educsci13010052>
- Indriani, C. L., Muth'im, A., & Febriyanti, E. R. (2024). English language learning through the use of digital technology: a literature review. *Linguistic, English Education and Art (LEEAA) Journal*, 7(2), 283-290. <https://doi.org/10.31539/leea.v7i2.9268>
- Kartikawati, D., & Nurhasanah, N. (2024). The role of teachers and digital literacy competencies. *Asian Journal of Social and Humanities*, 2(11), 2839-2847. <https://doi.org/10.59888/ajosh.v2i11.408>
- Li, L., & Cheong, L. K. (2024). Analysis of the research progress of teachers' digital competence in china based on bibliometrics. *International Journal of Academic Research in Progressive Education and Development*, 13(2), 869-882. <https://doi.org/10.6007/ijarped/v13-i2/21378>
- Li, Y., & Shang, F. (2023). Data mining technology helps digital teaching and learning of english majors in colleges and universities. *Applied Mathematics and Nonlinear Sciences*, 9(1). <https://doi.org/10.2478/amns.2023.2.01349>
- Ličen, S., & Prosen, M. (2024). Strengthening sustainable higher education with digital technologies: development and validation of a digital competence scale for university teachers (dcs-ut). *Sustainability*, 16(22), 1-14. <https://doi.org/10.3390/su16229937>
- Maggio, M. G., Giambò, F. M., Barbera, M., Pasquale, P. D., Bruno, F., Calderone, A., & Calabrò, R. S. (2025). Moving toward the digitalization of neuropsychological tests: an exploratory study on usability and operator perception. *Digital Health*, 11, 1-12. <https://doi.org/10.1177/20552076251334449>
- Malicsi, H. A. M. (2023). Digital competencies and challenges on teachers' instructional capabilities among public elementary schools. *International Journal of Research Publications*, 129(1), 370-379. <https://doi.org/10.47119/ijrp1001291720235286>
- Moreira, J. A., Nunes, C. S., & Casanova, D. (2023). Digital competence of higher education teachers at a distance learning university in portugal. *Computers*, 12(169), 1-20. <https://doi.org/10.3390/computers12090169>
- Ng, D. T. K., Leung, J. K. L., Su, J., Ng, C. W., & Chu, S. K. W. (2023). Teachers' ai digital competencies and twenty-first century skills in the post-pandemic world. *Educational Technology Research and Development*, 71(1), 137-161. <https://doi.org/10.1007/s11423-023-10203-6>
- Peng, R., Razak, R. A., & Halili, S. H. (2024). Integration of information and communication technology in teaching english among in-service teachers. *International Journal of Evaluation and Research in Education (IJERE)*, 13(2), 1235-1241. <https://doi.org/10.11591/ijere.v13i2.26347>
- Permatasari, A. D. A., Handayani, R. D., Siswati, B. H., & Bachtiar, A. A. (2023). Effectiveness test digital assessment based moodle as a digital assessment instrument for measuring

- science literacy skills for junior high school students. *JPPS (Jurnal Penelitian Pendidikan Sains)*, 220-232. <https://doi.org/10.26740/jpps.v13n1.p220-232>
- Pratiwi, I. R. (2024). Dynamics of educational digitalization in indonesia: the influence of korean culture in indonesia. *Proceedings of International Conference on Education*, 2(1), 102-106. <https://doi.org/10.32672/pice.v2i1.1325>
- Rasalli, R. I. Z., & Matore, M. E. E. M. M. M. (2023). Trends of the implementation of hybrid teaching and learning in mathematics education: a systematic literature review. *International Journal of Academic Research in Business and Social Sciences*, 13(2). <https://doi.org/10.6007/ijarbss/v13-i2/16220>
- Sabari, N. A. S., & Hashim, H. (2023). Sustaining education with digital storytelling in the english language teaching and learning: a systematic review. *International Journal of Academic Research in Business and Social Sciences*, 13(4), 208-224. <https://doi.org/10.6007/ijarbss/v13-i4/16860>
- Saparuddin, S., Istiqomah, I., Susilo, H., Ibrohim, I., & Ratnapuri, A. (2024). Subject-based lesson study supporting merdeka curriculum enactment: findings from malang city science teachers. *Journal of Community Service and Empowerment*, 5(1), 205-215. <https://doi.org/10.22219/jcse.v5i1.29411>
- Seifert, H., & Lindmeier, A. (2024). Developing a performance-based assessment to measure pre-service secondary teachers' digital competence to use digital mathematics tools. *Journal Für Mathematik-Didaktik*, 45(2). <https://doi.org/10.1007/s13138-024-00251-7>
- Sembiring, L. T. A. B., & Sembiring, S. S. (2024). Practical application of assessment theories for english teacher through digital technologies. *ETERNAL (English Teaching Journal)*, 15(2), 378-387. <https://doi.org/10.26877/eternal.v15i2.830>
- Sumarni, S., Iskandar, I., & Santosa, I. (2023). Assessing digital competence among pre-service english language teachers: strengths and weaknesses. *Journal of English Education and Teaching*, 7(3), 613-631. <https://doi.org/10.33369/jeet.7.3.613-631>
- Susrawan, I. N. A., Suandi, N., Sudiana, I. N., & Dewantara, I. P. M. (2024). Indonesian textbooks oriented on social integration and 21st century skills in higher education: validity, practicality, and effectiveness. *International Journal of Language Education*, 8(1), 83-96. <https://doi.org/10.26858/ijole.v8i1.60910>
- Taufiqulloh, T., Nindya, M. A., & Rosdiana, I. (2023). Using lms “elsakti” as an effective assessment medium for english efl learning. *Studies in English Language Teaching*, 11(3), 54-65. <https://doi.org/10.22158/selt.v11n3p54>
- Torres, E. d., Canalet, X., Fonseca, D., & Alsina, M. I. B. (2024). Automated monitoring of human-computer interaction for assessing teachers' digital competence based on lms data extraction. *Sensors*, 24(11), 1-19. <https://doi.org/10.3390/s24113326>
- Utami, A. A. I. D. A., & Suastika, I. N. (2023). Needs analysis of digital learning media development in middle school social studies learning in singlaraja, indonesia. *Proceedings of the 4th International Conference on Law, Social Sciences, and Education, ICLSSE 2022*, 28 October 2022, Singaraja. <https://doi.org/10.4108/eai.28-10-2022.2326329>
- Vieira, R. M., Tenreiro-Vieira, C., Bem-Haja, P., & Lucas, M. (2023). Stem teachers' digital competence: different subjects, different proficiencies. *Education Sciences*, 13(11), 1-13. <https://doi.org/10.3390/educsci13111133>
- Wahyuni, F., Munirah, M., & Nurlina, N. (2024). The practicality of e-module indonesian language based on contextual for students of elementary school teacher education. *PPSDP International Journal of Education*, 3(2), 50-63. <https://doi.org/10.59175/pijed.v3i2.294>

- Wei, Y. W. Y., Wei, Q. Q. Y., Qin, C. C. Q., & Chen, X. L. (2023). Research on the construction and application of knowledge graph of digital resources in vocational colleges. *Journal Computer*, 34(4), 195-201. <https://doi.org/10.53106/199115992023083404017>
- Wu, J., & Mao, Z. (2023). Research on the digital competency improvement path of higher vocational uav application technology professional teachers based on ai technology. *Atlantis Highlights in Computer Sciences*, 575-583. [https://doi.org/10.2991/978-94-6463-264-4\\_66](https://doi.org/10.2991/978-94-6463-264-4_66)