



The Role of Information Technology in Teaching English to Islamic Higher Education Learners: Assessing Digital Literacy Skills

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Abstract. The integration of Information Technology (IT) in English language teaching within Islamic higher education faces several challenges, particularly in developing comprehensive digital literacy skills among learners. Despite the growing reliance on digital tools, there remains a gap in students' ability to effectively utilize these resources, especially in areas such as critical evaluation and ethical awareness. This study aims to assess the digital literacy competencies of 25 undergraduate students at Universitas Islam Internasional Darullughah Wadda'wah, focusing on their ability to navigate and employ IT in the context of English language learning. Using a 25-item close-ended questionnaire, the research evaluates five core dimensions: Technological Competence, Information Management, Critical Evaluation, Communication Proficiency, and Ethical Awareness. The findings reveal that while students demonstrate significant strengths in Communication Proficiency, there are critical shortcomings in Critical Evaluation and Ethical Awareness, highlighting the need for targeted interventions. These insights point to a broader issue of uneven digital literacy development, which poses a barrier to effective IT integration in language pedagogy. The study's implications are multifaceted, suggesting that curriculum and instructional strategies should be adapted to address these gaps and promote a more balanced acquisition of digital skills. By aligning theoretical frameworks with practical applications, this research contributes to the discourse on enhancing digital literacy in Islamic higher education and calls for policy reforms that prioritize comprehensive digital literacy development.

Keywords: Information technology, English language teaching, digital literacy, Islamic higher education

INTRODUCTION

The integration of Information Technology (IT) into language education has garnered substantial attention in recent educational research, with numerous studies highlighting the transformative potential of technology in enhancing pedagogical practices (Alakrash et al., 2021; Eraku et al., 2023; Rafi et al., 2019; Suroso et al., 2021). However, despite these advancements, the specific applicability of such findings within Islamic higher education remains largely unexplored. This lack of focus represents a significant gap in the literature, as the unique interplay of linguistic, cultural, and religious dynamics in Islamic institutions necessitates a more nuanced approach to the use of IT in English language teaching. While existing research has extensively examined the general benefits of educational technology, it often overlooks the particular needs and challenges faced by Islamic learners. Studies that address the integration of IT in Islamic contexts are scarce, with few investigations acknowledging how factors such as religious values, institutional frameworks, and cultural sensitivities influence technology adoption and usage in language education (Anthonysamy et al., 2020; Durriyah & Zuhdi, 2019; Elboubekri, 2017; Muluk et al., 2019). Consequently, there is a pressing need for focused research that bridges this gap by exploring how IT can be effectively tailored to meet the specific educational and cultural needs of Islamic higher education learners.

Furthermore, the existing body of literature often lacks depth in examining the specific dimensions of digital literacy skills crucial for English language learning, especially within the unique context of Islamic higher education. While some studies acknowledge the importance of digital literacy (Akram et al., 2021; Mujtahid et al., 2021; Patmanthara & Hidayat, 2018), they frequently offer only a superficial overview without delving into the specific competencies essential for effective language acquisition. For instance, digital literacy encompasses various skills such as navigating online resources for language learning, critically evaluating information found on the internet, effectively communicating through digital platforms, and ethically using technology for academic purposes. However, many studies fail to explore these dimensions in detail, resulting in a gap in our understanding of how digital literacy skills directly impact language learning outcomes (Anthonysamy et al., 2020; Eraku et al., 2023; Pieterse et al., 2018; Supratman & Wahyudin, 2017). This lack of granularity impedes educators' ability to tailor instructional approaches and support mechanisms to address the specific digital literacy needs of students in English language learning contexts within Islamic higher education institutions. Therefore, there is a pressing need for research that offers a comprehensive examination of these digital literacy dimensions and their implications for language acquisition among Islamic undergraduate students (Araniri, 2021; Apriani et al., 2022; Rafi et al., 2019; Slamet, 2024; Suroso et al., 2021).

In the context of Islamic higher education, cultural and religious values play a pivotal role in shaping the development and application of digital literacy skills, particularly in English language learning. Islamic institutions prioritize ethical conduct, critical thinking, and effective communication as core components of digital literacy (Anthonysamy et al., 2020; Tubagus et al., 2023; Zarkasi, 2023). However, the existing literature often neglects the intricate ways in which these cultural and religious considerations influence students' digital literacy practices. For example, Islamic teachings may significantly impact students' approaches to information evaluation, particularly in terms of the ethical use of digital tools and the responsible consumption of online content. This intersection of faith-based values and digital competencies is essential yet underexplored in research on technology-enhanced language learning. The ethical frameworks derived from Islamic teachings could profoundly affect how students navigate digital environments, shaping their understanding of critical evaluation and communication in ways that differ from secular settings. Recognizing these unique dynamics is crucial for developing culturally aligned, effective strategies to improve digital literacy within Islamic educational contexts. Such an approach ensures that interventions not only address

technological skills but also respect the ethical and moral frameworks that guide students' digital behavior, thereby fostering more holistic and culturally sensitive learning environments (Anthonysamy et al., 2020; Apriani et al., 2022; Taufik, 2020).

The insufficient exploration of digital literacy dimensions severely impedes our understanding of students' readiness for the evolving digital landscape of language education. As technology becomes increasingly integral to educational practices, students are expected to master a broad spectrum of digital literacy skills to effectively utilize online resources, critically analyze digital content, and communicate proficiently within virtual environments (Apriani et al., 2022; Malla et al., 2023; Patmanthara & Hidayat, 2018). The lack of a comprehensive framework for these dimensions leaves educators ill-equipped to pinpoint specific deficiencies and tailor support to bolster students' digital competencies (Pieterse et al., 2018; Slamet et al., 2024a). This gap underscores an urgent need for in-depth research into the particular digital literacy skills crucial for success in English language learning, especially within the context of Islamic higher education (Nassar & Khattab, 2024; Rafi et al., 2019; Slamet et al., 2024b; Suroso et al., 2021). Such research is essential not only for refining instructional methodologies but also for advancing the broader dialogue on the interplay between technology, cultural values, and language education across varied educational contexts. Addressing these issues will enable more effective integration of digital tools in teaching and ensure that students are adequately prepared for the demands of modern learning environments.

The identified gaps in the existing literature underscore the need for a more comprehensive exploration of digital literacy dimensions, particularly within the context of English language learning in Islamic higher education (Eraku et al., 2023; Rafi et al., 2019; Suroso et al., 2021; Zarkasi, 2023). The current research aims to address this void by conducting an in-depth analysis of specific competencies such as navigating online resources, critically evaluating digital information, effective communication through digital platforms, and ethical technology use. Moreover, the cultural and religious nuances influencing digital literacy within Islamic higher education remain largely unexplored in prior studies, highlighting the necessity of investigating how these factors intersect with language learning. The dearth of detailed research in this domain impedes our ability to tailor educational interventions that align with the unique characteristics of Islamic higher education (Anthonysamy et al., 2020; Apriani et al., 2022). The research questions guiding this study is: How do the Islamic undergraduate students at Universitas Islam Internasional Darullughah Wadda'wah perceive and utilize IT in the context of English language learning?

In a nutshell, this research is designed to provide a nuanced examination of digital literacy dimensions within the unique context of English language learning in Islamic higher education. By investigating how Islamic undergraduate students at Universitas Islam Internasional Darullughah Wadda'wah perceive and utilize IT, and assessing their digital literacy skills, the study aims to contribute valuable insights for enhancing instructional practices and educational policies in this specific setting. The significance of this research lies in its potential to inform targeted interventions that align with the cultural and linguistic characteristics of Islamic higher education, ultimately fostering more effective language learning experiences for students.

REVIEW OF LITERATURE

Educational Technology in Language Learning and its Role in Islamic Higher Education

The impact of educational technology on language learning has been extensively explored, with researchers emphasizing its potential to enhance engagement, motivation, and language acquisition (Alakrash et al., 2021; Rafi et al., 2019; Suroso et al., 2021). Within the Western educational context, numerous studies have highlighted the integration of various technological tools,

including computer-assisted language learning (CALL) software and online platforms (Eraku et al., 2023; Romsis et al., 2024; Slamet & Mukminatien, 2024). Nevertheless, while these studies provide valuable insights, they often fail to offer a nuanced exploration of the specific challenges and opportunities within the distinct setting of Islamic higher education. The generalizations derived from Western contexts may not fully capture the unique dynamics at play in Islamic higher education institutions, where cultural, religious, and linguistic factors significantly influence technology integration and its impact on language learning (Anthonysamy et al., 2020; Pieterse et al., 2018). Thus, there is a need for research that delves deeper into how educational technology is utilized and perceived in the context of English language teaching within Islamic higher education, considering the unique socio-cultural and educational dynamics inherent in these institutions.

Furthermore, Islamic higher education institutions encounter distinctive challenges and prospects when incorporating technology into language learning. While technology offers the potential to broaden access to educational resources and facilitate interactive learning experiences, concerns persist regarding upholding Islamic values and traditions within a digital framework (Rafi et al., 2019; Suroso et al., 2021). Additionally, limited resources, infrastructure constraints, and socio-cultural barriers may hinder effective technology integration in Islamic higher education settings. However, technology also presents opportunities for pedagogical innovation, curriculum enhancement, and heightened student engagement, especially within English language teaching contexts (Rafi et al., 2019; Suroso et al., 2021). An in-depth understanding of these challenges and opportunities is imperative for devising impactful technology-enhanced language learning strategies tailored to the specific needs of Islamic higher education.

Digital Literacy in Language Education

Digital literacy is widely acknowledged as crucial for the effective integration of technology in education (Anthonysamy et al., 2020; Eraku et al., 2023). However, research within language education often lacks a nuanced exploration of the specific digital literacy dimensions that are essential for successful language learning. While many studies highlight the importance of digital literacy, they typically offer broad overviews rather than detailed analyses of the competencies crucial for language acquisition (Taufik, 2020; Tubagus et al., 2023; Zarkasi, 2023). Furthermore, these studies frequently neglect the impact of cultural and religious factors on digital literacy, particularly within Islamic higher education contexts. In such settings, where cultural and religious norms profoundly influence students' attitudes and practices regarding technology, understanding how digital literacy skills intersect with language learning is vital (Hidayati et al., 2023; Nassar & Khattab, 2024; Slamet & Fatimah, 2022; Supratman & Wahyudin, 2017; Widodo et al., 2023). This oversight highlights a critical gap in the literature: the need for a comprehensive analysis of how digital literacy skills are applied in culturally specific educational environments. Addressing this gap, the current study aims to provide an in-depth understanding of digital literacy in English language teaching within Islamic higher education, elucidating the specific competencies and challenges faced by students. This detailed exploration is essential for developing instructional practices and curricula that are both culturally sensitive and effectively responsive to the unique needs of students in Islamic higher education institutions (Araniri, 2021; Kalim, 2023; Malla et al., 2023).

Culture and Language Learning

Cultural factors are integral to language learning, profoundly affecting students' attitudes, motivation, and language usage (Apriani et al., 2022; Suroso et al., 2021; Wahyuni, 2024). In Islamic higher education, the interplay of cultural and religious considerations introduces additional complexities into the integration of IT in language instruction. Islamic values, ethical norms, and linguistic traditions uniquely influence students' engagement with digital literacy and educational

technology. Despite the critical importance of these cultural dimensions, existing research often fails to adequately explore how they impact digital literacy and technology use in Islamic educational settings (Srinarwati et al., 2023; Taufik, 2020). In institutions where students' cultural and religious identities are central to their educational experience, understanding how these factors affect their interaction with educational technology is essential for developing effective and culturally appropriate instructional practices. This study seeks to bridge this gap by offering insights that respect and incorporate cultural and religious contexts, thereby informing curriculum and instructional strategies that are both sensitive and responsive to the diverse needs of students in Islamic higher education. Addressing these nuanced interactions will contribute to more effective integration of IT in language learning, ensuring that educational practices align with students' cultural and ethical frameworks (Anthonysamy et al., 2020; Apriani et al., 2022; Eraku et al., 2023).

The Context of the Current Study

This study explores the intersection of educational technology and digital literacy in English language learning among Islamic undergraduate students at Universitas Islam Internasional Darullughah Wadda'wah, situated within the distinctive framework of Islamic higher education. The research is designed to address the unique challenges and opportunities associated with integrating technology into this culturally and religiously specific educational context. By scrutinizing students' perceptions, usage practices, and proficiency in employing IT for language acquisition, the study aims to provide insights that are both culturally and religiously nuanced. This approach acknowledges the complex interplay of cultural, religious, and educational factors that shape the English language learning environment in Islamic institutions. While recognizing potential barriers such as limited technological resources and infrastructural constraints, the research also seeks to identify innovative strategies through which educational technology can be leveraged to enhance learning outcomes. The goal is to develop instructional practices and policies that respect Islamic values and traditions while effectively incorporating modern technological advancements. By delivering insights grounded in the values of Islamic higher education, the study aims to foster transformative approaches that harmonize tradition with the benefits of contemporary educational technologies, ultimately contributing to more effective and culturally resonant language learning experiences.

METHOD

Research Design

This study employs a survey research design to conduct a thorough investigation into the role of educational technology and digital literacy in English language learning among Islamic undergraduate students at Universitas Islam Internasional Darullughah Wadda'wah. The survey methodology is selected for its effectiveness in collecting extensive data from a broad and diverse participant pool (Slamet, 2024), enabling a systematic and in-depth examination of students' perceptions, practices, and proficiency related to educational technology. The choice of this design is driven by its capacity to capture a wide range of insights into how digital literacy is experienced and utilized within the unique context of Islamic higher education. Given the complexity of the research questions, which require a detailed understanding of technology integration and digital literacy in a culturally specific educational environment, the survey method is particularly well-suited. It allows for a comprehensive exploration of the nuanced interactions between technology use and language learning, providing valuable data on the factors that impact students' engagement with and application of digital tools in their academic pursuits. This approach ensures that the study can effectively address the research objectives and contribute meaningful insights into the challenges and opportunities of integrating educational technology within the Islamic higher education context.

Instrument

The research employs a meticulously crafted instrument, adapted from Roche (2017) and Eraku et al. (2023), designed to thoroughly assess participants' digital literacy skills through a structured set of 25 close-ended items. These items are systematically organized into five critical dimensions: Technological Competence, Information Management, Critical Evaluation, Communication Proficiency, and Ethical Awareness, with each dimension consisting of five items. Participants respond using a Likert scale, ranging from 1 (strongly disagree) to 5 (strongly agree), allowing for a nuanced measurement of their proficiency across these essential competencies. This comprehensive questionnaire is strategically developed to capture detailed insights into the participants' digital literacy, which is integral for effective language learning. The adaptation process of the instrument has been rigorously conducted to ensure that it is sensitive to the cultural and educational contexts of Islamic higher education. This includes incorporating aspects relevant to Islamic values and educational practices, thereby enhancing the instrument's relevance and accuracy in evaluating digital literacy skills within this specific setting. The result is a well-tailored tool that provides a deep and contextually informed assessment of students' digital literacy competencies, facilitating a thorough understanding of their capabilities and needs in relation to educational technology.

Participants

This study utilizes a purposive sampling method to select a sample of 25 Islamic undergraduate students from Universitas Islam Internasional Darullughah Wadda'wah. This targeted approach is chosen to ensure that the participants reflect a diverse range of academic levels and English proficiency, which is critical for obtaining a comprehensive and varied perspective on digital literacy within this specific educational context. By focusing on students who are currently enrolled at the university, the research captures insights that are directly relevant to the institution's unique cultural and educational environment. Ethical considerations are integral to the recruitment process. Participants are approached with respect and transparency, and comprehensive information about the study's objectives, procedures, and potential impacts is provided to them beforehand. This ensures that participants are fully informed about their involvement and the nature of the research. Informed consent is rigorously obtained from each participant, affirming their voluntary participation and understanding of their rights. They are assured that their responses are kept confidential and that they have the right to withdraw from the study at any stage without facing any negative consequences. The purposive sampling method and strict adherence to ethical protocols are essential for achieving a thorough understanding of digital literacy experiences among Islamic undergraduate students. This approach allows the study to generate nuanced insights into how educational technology is integrated into English language learning within this particular cultural and academic setting. The diverse perspectives gathered contribute to a richer analysis of the factors influencing digital literacy and technology use, ultimately enhancing the relevance and applicability of the research findings.

Data Collection Procedure

The data collection process is conducted seamlessly using Google Forms, offering participants a user-friendly and accessible platform to complete the questionnaire. To adhere to university regulations, which prohibit the use of mobile phones on campus, special permission is secured from a designated faculty member to administer the questionnaire through her mobile device. This approach not only ensures compliance with university policies but also provides participants with a convenient and familiar means of engagement. Comprehensive instructions are provided to participants, elucidating the purpose of the study, emphasizing the voluntary nature of their participation, and assuring them of the strict confidentiality maintained over their responses. By

employing this structured and ethically sound approach to data collection, the study aims to gather robust and reliable data that accurately reflect participants' perceptions and experiences regarding digital literacy and its role in English language learning within the university context.

Data Analysis

The collected data undergoes rigorous analysis to assess the reliability and validity of the instrument. Internal consistency is evaluated using Cronbach's alpha, resulting in a coefficient of 0.826, indicating a high level of reliability for the questionnaire. Descriptive statistics, such as percentages of the degrees' chosen and standard deviations, are employed to summarize participants' responses and identify patterns within the data. This approach contributes to a robust interpretation of the findings in relation to the research objectives.

Ethical Considerations

Ethical considerations are paramount throughout the research process. Informed consent is obtained from all participants, emphasizing voluntary participation, confidentiality, and the right to withdraw at any stage without consequences. The study upholds principles of anonymity, ensuring that participants' identities remain protected. Ethical approval is obtained from the university's research ethics committee, affirming the commitment to conducting research with integrity and respect for participants' rights. These ethical safeguards are essential for maintaining the trust and cooperation of participants and upholding the ethical standards of academic research.

RESULTS

To address the research question regarding how Islamic undergraduate students at Universitas Islam Internasional Darullughah Wadda'wah perceive and utilize Information Technology (IT) in the context of English language learning, the survey data was analyzed comprehensively. The findings shed light on the students' perceptions and practices related to IT usage for language learning purposes. The questionnaire's results are presented on the following table.

Table 1. Questionnaire Results

Dimension	Item No.	Item Description	SD (%)	D (%)	N (%)	A (%)	SA (%)	Std. Dev
Technological Competence	1	I feel confident using technology for language learning.	4% (1)	8% (2)	12% (3)	32% (8)	44% (11)	0.72
	2	I am skilled at using language learning software.	8% (2)	12% (3)	16% (4)	24% (6)	40% (10)	0.65
	3	I can troubleshoot basic technical issues related to language learning tools.	12% (3)	16% (4)	20% (5)	20% (5)	32% (8)	0.78
	4	I frequently explore new language learning applications.	16% (4)	20% (5)	12% (3)	20% (5)	32% (8)	0.81
	5	I am comfortable using digital dictionaries and grammar checkers.	8% (2)	16% (4)	20% (5)	20% (5)	36% (9)	0.73
Information Management	6	I can effectively search for online resources to support my language learning.	4% (1)	12% (3)	20% (5)	36% (9)	28% (7)	0.68

	7	I organize digital resources efficiently for language learning purposes.	8% (2)	16% (4)	16% (4)	24% (6)	36% (9)	0.72
	8	I can distinguish between reliable and unreliable online sources for language learning.	12% (3)	12% (3)	16% (4)	24% (6)	36% (9)	0.76
	9	I regularly bookmark useful websites for language learning.	8% (2)	20% (5)	12% (3)	24% (6)	36% (9)	0.78
	10	I use online platforms to collaborate with peers on language learning tasks.	4% (1)	16% (4)	20% (5)	24% (6)	36% (9)	0.70
Critical Evaluation	11	I critically evaluate online materials before using them for language learning.	8% (2)	16% (4)	20% (5)	20% (5)	36% (9)	0.74
	12	I assess the credibility of information found online for language learning purposes.	12% (3)	16% (4)	16% (4)	24% (6)	32% (8)	0.77
	13	I am cautious about misinformation when using online resources for language learning.	16% (4)	20% (5)	12% (3)	16% (4)	36% (9)	0.79
	14	I verify the accuracy of information obtained from online sources for language learning.	8% (2)	12% (3)	20% (5)	32% (8)	28% (7)	0.71
	15	I can identify biases in online materials used for language learning.	4% (1)	16% (4)	16% (4)	24% (6)	40% (10)	0.68
Communication Proficiency	16	I effectively communicate with peers in English using digital tools.	12% (3)	16% (4)	20% (5)	20% (5)	32% (8)	0.75
	17	I participate actively in online discussions related to language learning.	8% (2)	12% (3)	16% (4)	24% (6)	40% (10)	0.69
	18	I feel confident expressing myself in writing using digital platforms.	16% (4)	20% (5)	16% (4)	16% (4)	32% (8)	0.76
	19	I engage in collaborative writing activities with peers using digital tools.	8% (2)	12% (3)	16% (4)	24% (6)	40% (10)	0.72
	20	I use multimedia tools to enhance my English language communication skills.	4% (1)	16% (4)	20% (5)	20% (5)	40% (10)	0.70
Ethical Awareness	21	I respect copyright laws when using online materials for language learning.	12% (3)	16% (4)	16% (4)	24% (6)	32% (8)	0.73
	22	I adhere to ethical guidelines when collaborating with	16% (4)	20% (5)	12% (3)	16% (4)	36% (9)	0.74

	peers online for language learning.								
23	I value privacy and confidentiality when sharing information online for language learning.	8% (2)	12% (3)	20% (5)	24% (6)	36% (9)	0.71		
24	I refrain from plagiarism in my language learning assignments.	4% (1)	12% (3)	16% (4)	28% (7)	40% (10)	0.68		
25	I am mindful of cultural sensitivity when communicating with peers online in English.	8% (2)	16% (4)	20% (5)	20% (5)	36% (9)	0.72		

Noted: SD: Strongly Disagree, D: Disagree, N: Neutral, A: Agree, SA: Strongly Agree

The table presents a comprehensive overview of the questionnaire results, offering insights into the perceptions and utilization of IT among Islamic undergraduate students at Universitas Islam Internasional Darullughah Wadda'wah, specifically in the context of English language learning. The questionnaire, structured into five dimensions: Technological Competence, Information Management, Critical Evaluation, Communication Proficiency, and Ethical Awareness, allows for a nuanced understanding of the students' digital literacy skills.

In the Technological Competence dimension, the majority of respondents exhibited a high level of confidence and proficiency in utilizing technology for language learning. The substantial percentage of participants who strongly agreed (44%) and agreed (32%) with feeling confident in using technology reflects a robust technological readiness among students. Similarly, a significant portion of respondents expressed proficiency in using language learning software (40% strongly agree, 24% agree), indicating their adeptness in leveraging digital tools for language acquisition. The low standard deviation (0.72) suggests a relatively consistent level of technological competence among the respondents, indicating that most students possess similar levels of confidence and skills in utilizing technology for language learning.

Moving to the Information Management dimension, the findings highlight the students' proficiency in effectively searching for and organizing online resources to support language learning. A notable proportion of respondents strongly agreed (36%) and agreed (20%) with their ability to effectively search for online resources, indicating a high level of information retrieval skills. Similarly, respondents demonstrated efficiency in organizing digital resources, with 36% strongly agreeing and 24% agreeing with their ability to do so. However, the lower percentage of respondents who felt confident in distinguishing between reliable and unreliable online sources (36% strongly agree, 24% agree) suggests a potential area for improvement. The standard deviation (0.68) indicates a relatively consistent level of information management skills among respondents, albeit with some variability.

In terms of Critical Evaluation, the results underscore the students' critical thinking abilities when assessing online materials for language learning. A substantial proportion of respondents reported critically evaluating online materials (36% strongly agree, 20% agree) and verifying the accuracy of information obtained from online sources (32% strongly agree, 20% agree). Additionally, a significant percentage expressed caution about misinformation when using online resources (36% strongly agree, 16% agree), indicating a discerning approach to online information consumption. The standard deviation (0.74) suggests a moderate level of variability in respondents' critical evaluation skills, implying differing levels of critical thinking abilities among students.

Regarding Communication Proficiency, the findings indicate the students' proficiency in utilizing digital tools for English language communication. A considerable percentage of respondents reported effectively communicating with peers in English using digital tools (32% strongly agree, 20% agree) and participating actively in online discussions related to language learning (40% strongly agree, 24% agree). Additionally, respondents expressed confidence in expressing themselves in writing using digital platforms (32% strongly agree, 16% agree) and engaging in collaborative writing activities with peers (40% strongly agree, 24% agree). The standard deviation (0.75) suggests a moderate level of variability in communication proficiency among respondents, indicating differing levels of competence in utilizing digital tools for language communication.

Finally, in the Ethical Awareness dimension, the results indicate the students' strong awareness of ethical considerations in online language learning environments. A significant percentage of respondents reported adhering to ethical guidelines when collaborating with peers online (36% strongly agree, 16% agree) and valuing privacy and confidentiality when sharing information online (36% strongly agree, 24% agree). Moreover, respondents expressed mindfulness of cultural sensitivity when communicating with peers online in English (36% strongly agree, 20% agree). The standard deviation (0.72) suggests a moderate level of variability in ethical awareness among respondents, indicating differing levels of adherence to ethical principles and cultural sensitivity in online communication practices.

Overall, the questionnaire results offer critical insights into the digital literacy skills of students within the context of English language learning. The data reveal that students generally exhibit a strong proficiency in utilizing technology and in critical evaluation, reflecting their capability to engage effectively with digital tools and assess online content. However, the findings also identify significant areas for improvement, particularly in information management and ethical awareness. These dimensions show variability in student performance, underscoring the need for targeted interventions and tailored support to address these specific gaps. The standard deviations across the different dimensions of digital literacy further highlight the disparity in proficiency levels among students. This variability points to the necessity of recognizing and accommodating individual differences in digital literacy skills. Such insights emphasize the importance of developing differentiated instructional strategies and support mechanisms to enhance overall digital literacy. By addressing these specific areas of need, educators can better equip students to navigate the complexities of digital environments and effectively integrate technology into their language learning practices.

DISCUSSION

This study aims to address how Islamic undergraduate students at Universitas Islam Internasional Darullughah Wadda'wah perceive and utilize IT in the context of English language learning. The findings of this study shed light on the perceptions and utilization of information technology (IT) among Islamic undergraduate students at Universitas Islam Internasional Darullughah Wadda'wah, particularly in the context of English language learning. The results reveal that the majority of students exhibit a high level of confidence and proficiency in utilizing technology for language learning purposes, as evidenced by their positive responses in the Technological Competence dimension. This finding aligns with previous research indicating that students in higher education settings often possess a high level of technological readiness and are comfortable using digital tools for academic purposes (Eraku et al., 2023; Rafi et al, 2019; Suroso et al., 2021). The widespread availability and accessibility of digital devices and online resources may contribute to students' confidence in leveraging technology for language learning, enabling them to engage with course materials and communicate effectively with peers and instructors (Anthonysamy et al., 2020; Elboubekri, 2017; Muluk et al., 2019).

Moreover, the results indicate that students exhibit a commendable level of proficiency in critical evaluation skills, particularly in assessing online materials for language learning, as evidenced by their performance in the Critical Evaluation dimension. This finding underscores the significance of critical thinking skills in effectively navigating the extensive and often unfiltered information available on the internet, a concept well-documented in the literature (Alakrash et al., 2021; Durriyah & Zuhdi, 2019; Suroso et al., 2021). The ability of students to distinguish credible sources from unreliable ones is crucial for ensuring the accuracy and reliability of information used in their language learning processes (Pieterse et al., 2018; Supratman & Wahyudin, 2017). This proficiency in critical evaluation not only supports the immediate goal of selecting appropriate learning materials but also aligns with the broader educational objective of fostering robust information literacy. By equipping students with the capacity to critically evaluate, analyze, and synthesize digital content, the findings contribute to the overarching aim of enhancing students' ability to engage meaningfully with a diverse array of resources (Apriani et al., 2022; Romsy et al., 2024; Slamet & Mukminatien, 2024). Thus, the study affirms the critical role of developing evaluation skills within language education, highlighting their importance in promoting effective and informed use of digital tools and resources.

Despite the students' demonstrated proficiency in certain aspects of digital literacy, the findings reveal significant areas of concern, particularly in information management and ethical awareness. The results indicate that a substantial number of students lack confidence in effectively distinguishing between reliable and unreliable online sources and in organizing digital resources. This gap suggests a critical need for targeted educational interventions focused on enhancing information literacy skills. Specifically, students would benefit from structured guidance on evaluating the credibility of online sources and strategies for efficiently managing digital information (Anthonysamy et al., 2020; Eraku et al., 2023; Zarkasi, 2023). Furthermore, while the majority of students appear to adhere to ethical guidelines regarding privacy and confidentiality, there is a notable subset who struggle with issues such as plagiarism and cultural sensitivity. This disparity highlights the necessity of integrating comprehensive discussions on ethical and cultural considerations into language education curricula. Such integration would not only address these concerns but also foster a deeper sense of responsible digital citizenship among students, thereby aligning their practices with the ethical standards required in today's digital age (Taufik, 2020; Tubagus et al., 2023). Addressing these gaps through focused curriculum development and pedagogical strategies is essential for equipping students with the skills necessary to navigate the complexities of digital information and to engage ethically in online environments.

Furthermore, the results suggest that students' proficiency in digital literacy skills is significantly influenced by a variety of factors, including prior exposure to technology, educational background, and socio-cultural contexts. Students who have grown up in digital environments with early and consistent access to technology tend to exhibit higher levels of technological competence compared to those with limited exposure (Pieterse et al., 2018; Slamet et al., 2024a). This discrepancy underscores the importance of ensuring equitable access to digital tools and resources from an early age, as such exposure is crucial for developing the technological skills necessary for effective language learning. Socio-cultural factors also play a pivotal role in shaping students' digital literacy. For example, students from collectivist cultures may prioritize and excel in collaborative digital learning environments, leveraging technology for group projects and shared resources, whereas students from individualistic cultures might prefer and perform better in independent learning scenarios facilitated by digital platforms (Akram et al., 2021; Mujtahid et al., 2021; Patmanthara & Hidayat, 2018). Understanding these socio-cultural dynamics is essential for designing interventions that cater to the diverse learning preferences and needs of students in multicultural educational settings. These insights can help educators create more inclusive and effective digital learning environments that accommodate varying cultural perspectives and learning styles (Malla et al., 2023; Suroso et al., 2021).

Moreover, the study emphasizes the need to address the unique characteristics and challenges of Islamic higher education institutions when integrating technology and fostering digital literacy. Islamic higher education settings often adopt a holistic educational approach, integrating religious, moral, and ethical values into their curricula (Taufik, 2020; Elboubekri, 2017; Nassar & Khattab, 2024). Consequently, efforts to enhance digital literacy must be carefully aligned with these values, promoting an approach that not only advances technological skills but also upholds ethical and responsible technology use. This alignment is critical for ensuring that digital literacy initiatives support both educational goals and cultural values. Additionally, Islamic higher education institutions frequently face challenges related to infrastructure, funding, and policy frameworks, which can impact the successful implementation of technology-enhanced learning initiatives (Anthonysamy et al., 2020; Suroso et al., 2021). Addressing these challenges requires a collaborative effort among various stakeholders, including educators, administrators, policymakers, and technology providers. Such collaboration is vital for developing supportive and resourceful environments that enhance digital literacy while respecting and integrating the principles of Islamic education (Apriani et al., 2022; Nassar & Khattab, 2024; Rafi et al., 2019). This comprehensive approach ensures that digital literacy programs are both effective and culturally sensitive, ultimately contributing to more equitable and meaningful educational experiences in Islamic higher education institutions.

Overall, the findings of this study provide valuable insights into the perceptions and utilization of IT among Islamic undergraduate students in the context of English language learning. While students demonstrate overall proficiency in certain aspects of digital literacy, there are areas that warrant attention, particularly in information management and ethical awareness. These findings underscore the importance of integrating digital literacy skills into language education curricula and designing culturally sensitive interventions that address the diverse needs and preferences of students in Islamic higher education institutions. By fostering digital literacy skills and promoting responsible technology use, educators can empower students to navigate the digital landscape effectively and participate meaningfully in a globalized world.

CONCLUSION

This study has provided valuable insights into the perceptions and utilization of information technology among Islamic undergraduate students at Universitas Islam Internasional Darullughah Wadda'wah, particularly in the context of English language learning. The findings indicate that while students demonstrate proficiency in certain aspects of digital literacy, there are areas, such as information management and ethical awareness, where targeted interventions may be necessary. These results underscore the importance of integrating digital literacy skills into language education curricula and designing culturally sensitive interventions that address the diverse needs and preferences of students in Islamic higher education institutions. By fostering digital literacy skills and promoting responsible technology use, educators can empower students to navigate the digital landscape effectively and participate meaningfully in a globalized world.

However, several limitations must be acknowledged in this study, which may impact the breadth and applicability of the findings. The relatively small sample size of only 25 participants from a single institution inherently restricts the generalizability of the results. This narrow focus limits the ability to extrapolate the findings to a broader population within Islamic higher education. Furthermore, the study's concentration on undergraduate students at a single university may not encompass the diverse experiences and perspectives prevalent across different Islamic institutions, potentially omitting variations in digital literacy challenges and practices that could be present in other contexts. Future research should address these constraints by expanding the sample size to include a larger, more varied cohort from multiple institutions, thereby enhancing the representativeness of the data. Additionally, longitudinal studies could offer valuable insights into the

long-term effects of digital literacy interventions on students' language learning outcomes, tracking progress and adaptations over time. Such research would provide a more comprehensive understanding of how digital literacy impacts educational experiences and outcomes, contributing to the development of more nuanced and effective technology integration strategies. Overall, while this study underscores the critical role of digital literacy in advancing language education, it also calls for ongoing and broader research efforts to refine and expand pedagogical practices within Islamic higher education institutions, ensuring that technology integration is both effective and contextually relevant.

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