



## Development of Faculty and Student Competencies in Digital Literacy for Arabic Language Learning

**A. Samsul Ma'arif<sup>1</sup>, Evi Nurus Suroiyah<sup>2</sup>, Sholihatul Atik Hikmawati<sup>3</sup>, Qurroti A'yun<sup>4</sup>**

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**Correspondence:**

[syamsulysyafa@uin-malang.ac.id](mailto:syamsulysyafa@uin-malang.ac.id)

**Affiliation:**

Department of Islamic Family Law,  
Faculty of Sharia, Universitas Islam  
Negeri Maulana Malik Ibrahim  
Malang, Indonesia<sup>1</sup>

[syamsulysyafa@uin-malang.ac.id](mailto:syamsulysyafa@uin-malang.ac.id)

Department of Library Science,  
Faculty of Sains and Technology,  
Universitas Islam Negeri Maulana  
Malik Ibrahim Malang, Indonesia<sup>2</sup>

[evienurus@uin-malang.ac.id](mailto:evienurus@uin-malang.ac.id)

Department of Arabic Language  
Teaching, Faculty of Tarbiyah,  
Universitas Islam Negeri Walisongo,  
Semarang, Indonesia<sup>3</sup>

[sholihatul.hikmawati@pba.uin-walisongo.ac.id](mailto:sholihatul.hikmawati@pba.uin-walisongo.ac.id)

Hidayatul Mubtadiin Islamic  
Education Foundation, Malang,  
Malang, Indonesia<sup>4</sup>

[bundasyafa15@gmail.com](mailto:bundasyafa15@gmail.com)

**Abstract**

The digital era necessitates a paradigm shift in Arabic language education within higher education institutions. Traditional pedagogical methods are no longer sufficient to meet the demands of technologically driven learning environments. Digital literacy—encompassing the ability to effectively use, evaluate, and create digital content—has become a fundamental competency for both lecturers and students to achieve optimal learning outcomes. This empirical-conceptual study aims to analyze strategies for developing digital literacy competencies in Arabic language teaching, drawing from studies indexed in Scopus and SINTA between 2019 and 2025. The findings reveal that the effectiveness of digital-based Arabic language learning largely depends on two critical factors: the lecturers' proficiency in designing interactive and engaging digital learning content, and students' ability to manage online learning resources effectively. Lecturers are expected to integrate innovative digital tools, such as Learning Management Systems (LMS), multimedia platforms, and interactive applications, to foster dynamic and student-centered learning experiences. Meanwhile, students need to develop skills in digital resource management, online collaboration, and critical evaluation of information to become autonomous learners. Furthermore, the study emphasizes the importance of continuous professional development in digital literacy through systematic training programs, interdisciplinary research collaborations, and the contextual adaptation of digital media to pedagogical goals. By integrating technology into language instruction, educators can enhance communicative competence, creativity, and intercultural awareness among learners. Ultimately, strengthening digital literacy in Arabic language education not only enhances teaching and learning effectiveness but also prepares graduates to thrive in the globalized digital landscape.

**Keywords:**

Arabic language learning, Digital era, Digital literacy, Lecturer competence, Students

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### A. INTRODUCTION

The development of digital technology has brought significant changes to the learning process in higher education, including in the field of Arabic language learning. The digital era requires lecturers and students to not only master the linguistic aspects of Arabic, but also have high digital literacy skills. Digital literacy includes the ability to access, understand, evaluate, and create information using digital technology critically and ethically (Gilster, 2017). In the context of Arabic language learning, this means the ability to utilize digital media, learning applications, and online resources as a means of improving language and pedagogical competencies (Hanif et al., 2023).

Advances in information technology have meant that Arabic language learning is no longer limited to traditional classrooms but has expanded to interactive virtual spaces. Online, hybrid, and Learning Management System (LMS)-based learning models have become an integral part of academic practice in various Islamic universities (Sanah & Hamid, 2020). UIN Maulana Malik Ibrahim Malang, for example, has developed various e-learning platforms that enable more flexible and contextual interaction between lecturers and students in Arabic language learning. However, the use of this technology requires adequate digital literacy from both lecturers and students so that the learning process can take place effectively (Zendrato, 2025).

The digital era presents various new challenges in the world of Arabic language education. One of the main challenges is the digital literacy gap between lecturers and students. Some lecturers are still limited in their ability to use digital devices such as learning applications, video conferencing, and academic social media (Rahman, 2017). Meanwhile, students tend to adapt more quickly to technology, but they do not necessarily have good critical thinking and digital ethics skills (Ningsih, 2020). This condition creates an imbalance in the learning process, where the transfer of digital knowledge becomes suboptimal. In addition, another challenge arises from the availability of Arabic digital learning resources. Although there are various online platforms such as Al-Madinah Arabic, Duolingo Arabic, and Tadrib, most of these resources are still dominated by non-academic approaches and are not in line with the Islamic higher education curriculum (Ismail, 2019). Therefore, there is a need to develop digital literacy competencies that are oriented towards pedagogical and research skills for lecturers and analytical and reflective skills for students (Fauzan, 2021).

The concept of digital literacy is not merely the technical ability to operate technological devices, but also includes cognitive and social abilities in using technology for meaningful learning (Ng, 2012). In the context of Arabic language learning, digital literacy involves the ability to search for, evaluate, and use Arabic-language resources effectively, as well as interact digitally in that language (Rohmah & Maulidiyah, 2023). This competency is important so that students can broaden their linguistic and cultural knowledge of Arabic in a contextual manner, rather than relying solely on traditional print sources. According to the results of Zendrato's research in Mesada: Journal of Innovative Research, students' digital literacy in the field of Islamic studies plays a major role in increasing the effectiveness of learning based on classical Arabic texts (Zendrato, 2025). Students who are accustomed to using digital interpretation applications and e-libraries demonstrate a better level of text comprehension compared to those who still rely on conventional methods. These findings emphasize that digital literacy is a key foundation in Arabic language learning in the modern era.

Lecturers play a strategic role in shaping an Arabic language learning ecosystem that is oriented towards digital literacy. As educators, lecturers are not only conveyors of material, but also facilitators who help students develop critical thinking and digital skills. According to Sutopo, lecturers' mastery of technology must cover four main dimensions: digital pedagogy, online collaboration, digital content management, and academic ethics (Sutopo, 2021). The application of blended learning and flipped classroom models that combine face-to-face and online learning is one effective solution to improve the quality of learning interactions (Haryono, 2020). Digital literacy-based lecturer training programs have been proven to improve the quality of learning in a number of Islamic universities (Fadhilah & Karim, 2022). The training covers the use of e-learning platforms such as Moodle and Google Classroom, as well as the integration of interactive media such as Canva, Kahoot, and Padlet in Arabic language learning activities. Lecturers with high digital literacy are able to design learning activities that are more participatory, communicative, and in line with the learning styles of Generation Z students.

Students as subjects of learning have an active responsibility in developing digital literacy. Their ability to select information and utilize technology to support Arabic language learning is key to the success of educational transformation in the digital age (Rohmah & Maulidiyah, 2023). Research by Ismail shows that students who are accustomed to using digital dictionary applications, online discussion forums, and Arabic-language video content show a significant increase in vocabulary mastery and speaking skills (Rohmah et al., 2018). However, students also

need to be guided to develop good digital citizenship, namely awareness of digital ethics, copyright, and academic authenticity (Sutopo, 2021). Mastery of digital literacy without being balanced with ethics and responsibility can lead to plagiarism and the use of invalid sources, which actually reduces academic quality.

Efforts to develop digital literacy in Arabic language learning cannot be separated from the role of the curriculum. A curriculum that is adaptive to digital needs will facilitate students to learn independently and creatively. Several Islamic universities in Indonesia, including UIN Malang, have begun to integrate Digital Literacy for Arabic Learning courses into the Arabic language curriculum (Hidayat, 2022). This approach helps students become familiar with various learning applications, Arabic digital resources, and how to assess the credibility of online sources. According to Ningsih, the integration of digital literacy into the Arabic language curriculum also encourages project-based learning, where students are assigned to create Arabic-language digital content such as vlogs, e-posters, and scientific blog articles (Ningsih, 2020). This model not only improves language skills but also trains creativity, collaboration, and digital responsibility.

The development of lecturers' and students' digital literacy competencies is an urgent need in the era of the Fourth Industrial Revolution and Society 5.0. The world of education is required to produce a generation that is not only technologically literate but also capable of utilizing technology for the development of Islamic science and culture. The digital competence of lecturers determines the quality of learning, while the digital competence of students determines the quality of learning outcomes. Both must go hand in hand in building an academic ecosystem based on digital literacy and Islamic values (Ningsih, 2020). Competence improvement can be achieved through continuous training, digital research collaboration, and the development of technology-based learning content. Islamic universities are expected to become centers of digital literacy excellence that focus not only on technology but also on shaping academic character based on the values of the Qur'an and the Arabic language (Arifuddin et al., 2025).

## B. METHODS

This study uses a qualitative descriptive approach with the aim of describing in depth how lecturers and students develop digital literacy competencies in Arabic language learning in Islamic higher education institutions. This approach is considered the most appropriate because it can describe phenomena factually, systematically, and contextually without intervening in the research variables (Sugiyono, 2020). The research location was set at UIN Maulana Malik Ibrahim Malang, involving two main faculties that have intensive Arabic language learning activities, namely the Faculty of Sharia and the Faculty of Tarbiyah and Teacher Training. The research subjects consisted of 10 lecturers teaching Arabic courses and 30 active students selected through purposive sampling. This selection was based on the participants' active involvement in the digital learning process and their willingness to provide information relevant to the research objectives.

Data was obtained through three main techniques: (1) In-depth interviews with lecturers and students to explore their experiences, perceptions, and challenges in using digital media; (2) Participatory observation of online and face-to-face learning activities that integrate digital technologies such as LMS, Google Classroom, and video conferencing platforms; (3) Documentation, including analysis of the RPS, digital teaching materials, and student activities on online learning platforms (Creswell, 2018). The combination of these three techniques aims to obtain comprehensive and in-depth data on digital literacy practices in the context of Arabic language learning.

Data analysis was conducted interactively following the model of Miles, Huberman, and Saldaña (2019), which includes data reduction, data presentation, and conclusion drawing (Miles et al., 2019). The analysis process was carried out throughout the research activities so that all information obtained could be immediately organized and interpreted. To ensure data validity, this study applied source and method triangulation, comparing the results of interviews, observations, and documentation to ensure consistency and reliability of findings. In addition, member checking was conducted with participants to confirm the researchers' interpretations

(Lincoln et al., 2011).

Ethically, the entire research process follows academic ethical principles, such as informed consent, confidentiality of identity, and use of data solely for scientific purposes. This descriptive approach is expected to provide a comprehensive overview of the strategies for developing the digital literacy of lecturers and students in Arabic language learning in the digital age.

### C. RESULT & DISCUSSION

This study found that digital literacy has become one of the key factors determining the success of Arabic language learning in Islamic universities. The rapid transformation of education due to technological developments requires lecturers and students to not only be able to operate digital devices, but also to use them critically, creatively, and collaboratively in an academic context. In the data collection process, both from interviews and observations, it appears that most lecturers and students at UIN Maulana Malik Ibrahim Malang have shown real efforts in utilizing digital technology to support Arabic language learning. However, the level of digital competency maturity among them is still diverse and not yet fully uniform.

Arabic lecturers have generally recognized the importance of utilizing technology as a means of modern learning. The use of Learning Management Systems (LMS), Google Classroom, Zoom, and presentation applications such as PowerPoint and Canva has become part of their academic routine. However, most of the use of these media is still administrative and informative in nature. Lecturers use technology to upload materials, assign tasks, and assess learning outcomes, but have not yet made it an interactive space for building a communicative and participatory Arabic learning experience (Arifuddin et al., 2025).

In interviews, several lecturers admitted that they still feel burdened by the ever-changing adaptation of new technologies. The lack of specific training in Arabic digital literacy means that they have to learn independently through daily practice. This phenomenon is in line with Arifin's findings in the *Al-Ta'lim al-'Arabiyy* Journal, which explains that Arabic lecturers in many Islamic universities still tend to use digital media as a tool, not as a primary pedagogical tool (A. Arifin, 2017). This shows that there is a gap between awareness of the importance of technology and the pedagogical ability to integrate it effectively.

Some young lecturers appear to be more adaptive to digital developments. They use applications such as Kahoot, Quizizz, and Nearpod to create a more engaging learning atmosphere. These innovations generate enthusiasm among students because they feel directly involved in the learning process. However, this kind of implementation is not yet common practice in all classes. Generational differences, levels of experience, and familiarity with technology cause significant variations in how lecturers utilize digital media.

Within the framework of TPACK (Technological Pedagogical Content Knowledge) theory developed by Mishra and Koehler, lecturers' abilities should not only lie in mastery of technology and content alone, but also in the ability to combine the two pedagogically (Mishra & Koehler, 2006). In the context of Arabic language learning, this integration can take the form of using digital media to enrich language skills—for example, using YouGlish Arabic for phonetic training, Padlet for interactive writing, or Google Translate Discussion as a means of syntactic analysis. However, based on observation results, the majority of lecturers are still in the early stages of this integration, where technology serves as a complement rather than a catalyst for pedagogy (Sulesti et al., 2025).

Students show a slightly different picture. As digital natives, they are relatively more adaptable to various online learning applications. Almost all students interviewed use digital media in learning Arabic, whether through YouTube channels, social media, or language learning applications such as Duolingo and Busuu. They also access various Arabic websites to enrich their vocabulary. However, their abilities are still technical and consumptive in nature; they know how to use these tools but are not yet accustomed to evaluating the reliability of sources or managing digital content academically.

Students often view digital media as a practical learning resource, but rarely explore the

linguistic depth behind the texts or videos they study. Many of them use Google Translate or automatic translation applications without paying attention to grammatical and syntactic context. In interviews, some students admitted that although technology helps them understand Arabic texts quickly, the results are not always accurate. They tend to accept the translations without criticism, something that Mubarok in Arabiyatuna: Jurnal Bahasa Arab (Arabic Language Journal) considers to have the potential to perpetuate systematic language errors (Mubarok, 2022).

The digital literacy level of students, therefore, is mostly at a functional level—able to access and utilize technology—but has not yet reached an evaluative and creative level. As explained by Al-Habsy in Arabiyat Journal, Arabic language students in Indonesia generally still focus on the technical skills of using digital media, while analytical and collaborative aspects have not been optimally developed (Al-Habsy, 2022a). In other words, students have not yet become “creators” in the digital ecosystem, but are still merely “consumers.”

Field observations also show a gap in digital interaction between lecturers and students. Lecturers sometimes complain that students rely too much on online sources without reading the main textbooks. Conversely, students feel that some lecturers do not utilize technology in an engaging way, making digital learning feel monotonous. This situation reflects what Rahmah refers to as the digital generation gap — a mismatch between the speed at which students adapt to technology and the pedagogical readiness of lecturers in managing digital learning (Rahmah, 2021).

In addition to personal competency factors, limitations in digital infrastructure are also a significant obstacle. Some classrooms are still not equipped with online learning support devices such as stable internet connections and interactive projectors. This means that lecturers often have to improvise when delivering material. Setiawan in the Teknodik Journal revealed that digital infrastructure challenges remain a major obstacle to the success of online learning in many Islamic universities (Setiawan, 2020). Without adequate facility support, digital innovation is often hampered at the implementation level.

However, this study also found a number of commendable practices. Several lecturers have begun to develop independent digital teaching materials, such as dynamic PowerPoint-based interactive modules, Arabic language learning videos, and podcasts that explain the rules of nahwu and sharaf in a communicative manner. Such efforts demonstrate a transformative spirit among educators to adapt to the digital age (Ma'arif, 2020). Students also responded positively, especially when learning was conducted using a project-based learning approach that allowed them to create Arabic-language digital content, such as vlogs, infographics, and short articles on personal blogs.

In terms of learning strategies, lecturers who were more adaptive to technology tended to use a collaborative approach. They formed online study groups through the Telegram or Google Classroom platforms, where students were asked to discuss using Arabic in a digital context. This strategy is in line with the concept of connectivism proposed by Siemens, which states that learning in the digital age emphasizes connectivity, collaboration, and knowledge construction through networks (Siemens, 2005). This approach has been proven to increase student participation and expand the space for academic interaction outside the classroom.

The interview results also show that institutional support plays a very decisive role. Lecturers who received support in the form of digital literacy training from the campus showed a significant increase in technology-based pedagogical skills. This type of training not only adds technical skills but also strengthens lecturers' confidence in experimenting with new media. Siregar and Rahmadani emphasize that discipline-based training is more effective than general training because it is directly relevant to the learning context (Yunaldi & Siregar, 2021). In this case, digital literacy training specifically for Arabic language teaching needs to focus on the use of linguistic technologies such as morphological analysis applications and digital dictionaries.

Campus policies also play a significant role in fostering a culture of digital literacy. When educational institutions reward digital innovation and provide space for lecturers and students to experiment, there is a stronger motivation to develop digital creativity. Syahrul in the Journal of Educational Transformation explains that institutional policies oriented towards digital

innovation can create a progressive academic ecosystem (Syahrul, 2023). Thus, the transformation of digital literacy cannot be done individually, but needs to be structurally supported by campus policies that favor the development of learning technology.

The phenomenon of digital literacy among lecturers and students cannot be separated from the global context of 21st-century competencies. Digital literacy is one of four key skills, along with critical thinking, creativity, collaboration, and communication (Bawani, 2020). In the context of Arabic language learning, digital literacy includes the ability to understand, write, listen, and speak using digital technology as a means of communication and scientific reflection. Therefore, the success of Arabic language learning in the digital age is not only determined by linguistic ability but also by the ability to manage information and adapt to the ever-evolving digital ecosystem.

The findings of this study also show that digital literacy is a gradual process that develops over time. Martin and Grudziecki describe three levels of digital literacy: digital competence, digital use, and digital transformation. Based on observations, most lecturers and students at UIN Malang are still in the second stage, namely digital use (Martínez-Bravo et al., 2022). They have utilized technology in learning activities, but have not yet fully embraced technology as a means of transforming learning. To reach the transformation stage, systematic efforts are needed through continuous training, digital pedagogical coaching, and innovation-based performance evaluation.

From a reflective perspective, the relationship between lecturers and students in the context of digital literacy should be symbiotic. Lecturers act as facilitators who provide academic direction and framework, while students become creative agents who utilize technology to build new knowledge. This approach not only improves digital skills but also fosters a sense of responsibility and independence in learning. Strengthening a collaborative, technology-based academic culture will be the foundation for creating an adaptive, relevant, and sustainable Arabic language learning ecosystem.

Thus, the results of this study confirm that the development of digital literacy competencies cannot be done partially. It requires synergy between institutional policies, strengthening the capacity of lecturers, and empowering students. Digital literacy must be understood not only as the technical ability to use tools, but as part of academic life skills that demand ethics, creativity, and scientific responsibility. When these three components—stitutions, lecturers, and students—work in digital harmony, Arabic language learning in Islamic higher education will evolve into a modern educational model that is not only relevant to the times but also in line with Islamic scientific and spiritual values.

**Table 1. Key Findings of Research on Digital Literacy Among Lecturers and Students**

No	Aspects of Digital Literacy	Findings on Lecturers	Findings on Students	Implications for Arabic Language Learning
1.	Conceptual Understanding	Most understand the urgency of digital literacy, but not all relate it to pedagogical theory.	Students understand digital literacy as merely the technical ability to use online media.	Conceptual reinforcement is needed so that digital literacy is understood as an academic competency, not merely a technical skill.
2.	Use Technology	Using LMS, Zoom, and Using of PowerPoint for teaching; some have apps; not much started utilizing Kahoot, Quizizz, and Canva	Using YouTube, Google Translate, and language learning for Translate, and language learning directed towards interactive and collaborative media.	The use of technology should be directed towards interactive and collaborative project-based learning.
3.	Digital Creativity	Young lecturers are starting to create videos, digital modules, and podcasts; senior lecturers are still limited to presentation media.	Students are enthusiastic about creating simple content (vlogs, blogs, infographics) but do not yet have an academic direction.	A collaborative program between lecturers and students is needed to produce scientific Arabic-language digital products.

4.	Digital Evaluation and Reflection	Digital assessments are still in the form of online assignments; reflection on media use is rarely conducted.	Students rarely assess the reliability of online sources; they often accept translations without criticism	There is a need to strengthen critical and evaluative thinking skills in assessing digital sources
5.	Main Obstacles	Lack of digital literacy training, limited time and infrastructure.	Reliance on translation applications and lack of digital support, and academic guidance	Systematic training, institutional and policies are needed.

The table above illustrates the dynamics of digital literacy between lecturers and students in the context of Arabic language learning at UIN Maulana Malik Ibrahim Malang. In terms of conceptual understanding, the majority of lecturers are aware that mastery of technology is a key requirement in the digital age. However, this understanding is generally limited to a functional level, i.e., knowing the benefits of technology without fully internalizing the pedagogical values it embodies. Meanwhile, students are more prominent in their operational skills in using digital devices, but lack an understanding of the scientific principles and academic ethics of their use.

In terms of technology utilization, lecturers tend to use managerial applications such as LMS and Google Classroom for material distribution and task evaluation. A small number of young lecturers have begun to innovate through interactive applications such as Kahoot or Quizizz. Students utilize social media and online learning platforms to hone their Arabic language skills independently. However, neither group has fully embraced digital technology as a dialogical tool that facilitates participatory learning.

In the realm of digital creativity, young lecturers and students show great potential for innovation. Lecturers have produced Arabic language learning videos and podcasts, while students express themselves through vlogs or digital infographics. However, the results of this creativity are often not directed towards more measurable academic goals. This condition is in line with Mishra and Koehler's view that effective integration of technology in learning requires a balance between content mastery, pedagogy, and technology (Mishra & Koehler, 2006).

The aspects of digital evaluation and reflection show similar weaknesses. Lecturers still assess student learning outcomes through online assignments without reflecting on the effectiveness of the media used. Students also tend to be passive in assessing the validity of digital sources. In fact, according to Al-Habsy, critical and reflective thinking skills are at the core of advanced digital literacy. Therefore, a paradigm shift is needed from simply using technology to critically mastering information (Al-Habsy, 2022b).

The main obstacles identified relate to a lack of formal training, time constraints, and uneven access to digital resources. Lecturers need structural support from institutions in the form of ongoing training and policies that reward digital innovation. Students need focused academic guidance so that they do not become trapped in a pattern of technology consumption. As stated by Syahrul, the success of digital literacy in higher education requires synergy between lecturers, students, and campus policies that support a culture of digital innovation (Syahrul, 2023).

Overall, Table 1 shows that the development of digital literacy among lecturers and students is not yet at a transformative level, but is already heading towards a constructive adaptive phase. Efforts to improve digital competence need to focus on collaborative coaching, enhancing reflective abilities, and strengthening technology-based learning infrastructure. With these steps, the Arabic language learning ecosystem in Islamic higher education institutions will become more inclusive and responsive to the demands of the digital era.

**Table 2. Strategies for Strengthening Digital Literacy of Lecturers and Students in Arabic Language Learning**

No	Strengthening Field	Strategies Implemented	Form of Implementation	Expected Impact
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1. Institutional Policy	Establishing campus policies based on digital guidelines, infrastructure transformation	Development of digital learning support, digital innovation awards	The creation of a sustainable digital academic culture
2. Faculty Development	Arabic language-based digital literacy training	Workshop on creating interactive teaching materials, microlearning, and educational videos	Improving faculty members' TPACK skills and learning innovation
3. Student Empowerment	Improvement of academic digital literacy competencies	Digital research training, Arabic Students become creators of creative content projects, Arabic educational content and active online discussions	Students become creators of creative content projects, Arabic educational content and active online discussions
4. Faculty-Student Collaboration	Digital project-based learning	Production of videos, vlogs, Enhancing creativity, responsibility, podcasts, and collaborative learning media	Enhancing creativity, responsibility, and teamwork in an academic context
5. Curriculum Integration	Incorporating digital literacy into the RPS and learning evaluation	Establishing digital competency indicators in Arabic language courses	Digital literacy is part of graduate learning outcomes
6. Digital Evaluation and Reflection	Development of a digital-based assessment system	The use of e-portfolios, peer assessment, and online media-based reflection	The realization of reflective and transparent learning
7. Infrastructure and Technical Support	Provision of modern learning technology facilities	High-speed internet, multimedia rooms, integrated learning platforms	Supporting the implementation of efficient and inclusive digital learning

This table shows various strategies that can be used to strengthen the digital literacy of lecturers and students in Arabic language learning at Islamic universities. These strategies emphasize the importance of a systemic approach, which focuses not only on individuals (lecturers and students), but also on institutional support and policies that regulate the digital learning ecosystem.

In the context of institutional policy, campuses need to play a role as drivers of digital transformation by developing clear guidelines and frameworks. These guidelines include the provision of infrastructure, ongoing training, and incentive systems for lecturers and students who engage in digital innovation. As emphasized by Syahrul, the success of digital literacy is greatly influenced by the extent to which campuses create an academic culture that is adaptive to technology. Consistent policy support will shape a progressive academic climate, where digital innovation becomes part of institutional identity (Syahrul, 2023).

In terms of lecturer development, contextually designed training is greatly needed. This training should not only focus on the use of technology, but also on its application in Arabic language teaching. For example, training in making learning videos that contain listening, speaking, or translation exercises using digital applications such as Canva, CapCut, or Audacity. According to Arifin, pedagogically oriented training encourages lecturers to not only be users of technology, but also creators of relevant educational content (Z. Arifin, 2020).

Meanwhile, student empowerment is directed at improving academic digital literacy. Students need to be trained to use technology critically and productively, for example through projects to create Arabic-language educational content, online research using Arabic-language sources, and virtual scientific discussions. Thus, students are no longer passive users, but active and reflective learning agents. Al-Habsy emphasizes that students with high digital literacy will be better prepared to face the challenges of language and cultural globalization (Al-Habsy, 2022a).

In terms of faculty-student collaboration, digital project-based learning has proven effective in developing creativity, collaboration, and communication. When lecturers and students work together to produce digital products such as podcasts, videos, or interactive teaching materials, a two-way learning process occurs that enriches both parties. This project-based learning model is in line with Siemens' connectivism theory, in which learning is understood as a process of building connections and collaboration in a digital ecosystem (Siemens, 2005).

Furthermore, curriculum integration is an important foundation so that digital literacy does not only become an additional activity but is internalized in learning outcomes. A curriculum that includes digital competency indicators allows lecturers to assess the extent to which students are able to use technology in developing their Arabic language skills. This integration strengthens the position of digital literacy as a 21st-century competency that college graduates must have (Bawani, 2020). The digital evaluation and reflection process also needs to be updated to suit the nature of digital learning. E-portfolio-based assessment and peer assessment systems enable students to reflect on their own competency development. On the other hand, lecturers can assess the learning process more holistically, not only based on the final results. This kind of digital reflection encourages greater transparency and academic responsibility (Miles et al., 2019).

Ultimately, the success of all these strategies depends heavily on infrastructure and technical support. Adequate technological facilities—such as high-speed internet, multimedia rooms, and integrated online learning systems—are absolute prerequisites for effective and inclusive digital education. As Setiawan argues, infrastructure is the backbone of sustainable digital innovation in higher education (Setiawan, 2020). By implementing these strategies in an integrated manner, Islamic educational institutions will be able to create a dynamic, creative, and future-oriented Arabic language learning ecosystem. Digital literacy not only improves the quality of teaching and learning but also fosters an adaptive and innovative spirit that is in line with Islamic scientific values.

#### **D. CONCLUSION**

The results of this study indicate that the development of digital literacy among lecturers and students in Arabic language learning is a multidimensional process involving aspects of knowledge, skills, and academic attitudes towards technology. Both lecturers and students have shown a fairly good level of adaptation to various digital platforms, albeit to varying degrees. Lecturers tend to use technology as an administrative and instructional aid, while students use it for independent learning and online communication. However, both lecturers and students still face challenges in integrating technology into the learning process in a reflective, creative, and pedagogically oriented manner.

In general, digital literacy in Islamic higher education institutions can be categorized at the stage of digital use, not yet fully reaching the level of digital transformation as described by Martin and Grudziecki. This condition indicates that technology is present in learning activities, but has not yet fully formed a new paradigm in Arabic pedagogy. There needs to be a shift from the use of technology as a tool to a digital pedagogical approach that encourages collaborative, reflective, and creative learning.

Improving lecturer competence is the starting point for this transformation. Lecturers need to be equipped with Technological Pedagogical Content Knowledge (TPACK)-based digital literacy training so that they are able to link Arabic content with appropriate teaching strategies and technology (Mishra & Koehler, 2006). This type of training must be contextual and continuous so that it does not merely add technical skills but also strengthens the pedagogical capacity of lecturers in designing communicative and effective digital learning.

Students, as the digital generation, need to be guided to become producers of knowledge and not just consumers of information. Digital project-based learning, such as creating vlogs, podcasts, or blogs in Arabic, can be a means of improving productive digital literacy. When students are able to produce academic content in Arabic, they not only improve their language skills but also strengthen their critical and reflective thinking skills in selecting and processing digital information.

From an institutional perspective, campuses play a strategic role in creating a digital academic culture. Policy support, adequate infrastructure, and reward systems for digital learning innovation need to be continuously developed. Institutions must ensure that every study program, including Arabic Language Education, has digital literacy achievement indicators in its curriculum and assessment. In addition, the provision of multimedia learning spaces, strong

internet networks, and integrated learning platforms will accelerate the realization of an inclusive and sustainable digital ecosystem.

Based on the results and reflections of this study, it can be concluded that the development of digital literacy among lecturers and students is not merely a technical necessity, but part of an epistemological transformation in Arabic language education. When digital literacy is understood as an academic skill that involves critical thinking, digital ethics, and creativity, Arabic language learning in the digital era will be able to produce an adaptive, productive, and globally competitive academic generation.

Recommendations for readers: First, Arabic language lecturers need to strengthen digital literacy through technology-based pedagogical training and digital practice communities. Second, students should be trained to use digital media reflectively and creatively so that they do not get caught up in a culture of technological consumption. Third, educational institutions need to formulate policies and infrastructure support oriented towards sustainable digital innovation. Fourth, further research is recommended to explore models for integrating digital literacy into project-based Arabic language curricula and cross-disciplinary collaboration.

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