Jurnal Pembelajaran Bahasa dan Sastra
Volume 5, Nomor 6, November 2026
DOI: https://doi.org/10.55909/jpbs.v5i6.1948

https://pembahas.dialeks.id/index.php/jp
p-ISSN : 2809-5367
e-ISSN : 2809-6355

ChatGPT as Digital Scaffolding: Exploring the Interaction of Arabic Language Education Students at Universitas Negeri Jakarta

Atikah Marwa[1*], Fuji Fitri Anjani[2], Ika Mahmudah Fauziah[3], Romzan Afkaryan Chakam[4], Samsi Setiadi[5]

[12345]Program Studi Pendidikan Bahasa Arab, Universitas Negeri Jakarta, DKI Jakarta, Indonesia
*E-mail: atikahmarwa@unj.ac.id

ABSTRACT
This study aims to describe the forms of students' interaction with ChatGPT as digital scaffolding, analyze how these interactions relate to interactions with the lecturer and peers, and trace the tendencies in how they changed during Qira'ah Mukatsafah learning. It employed a qualitative single case study in the Arabic Language Education Study Program at Universitas Negeri Jakarta during the 2026 even semester. The participants were two course lecturers and ten second-semester students from two of the course's eight classes. The researcher served as the primary instrument and acted as a non-participant observer. Data were collected through observation across 16 classroom meetings, semi-structured interviews, and documentation, using observation guidelines and interview. They were analyzed using inductive-led thematic analysis adapted from Braun and Clarke and interpreted through scaffolding theory, while trustworthiness followed Lincoln and Guba's criteria. The results show five forms of interaction with ChatGPT: looking up basic meanings, clarification and deepening of meaning, verification of understanding, organizing learning outcomes, and developing reading independence. These interactions did not stand alone. Students compared ChatGPT's answers with the textual context, the lecturer's explanations, and peer discussions, so support was distributed across all three sources, while pedagogical interaction remained necessary to verify the accuracy of interpretation. Over the observed period, use of ChatGPT tended to shift from a guided stage, through an exploratory and repetitive stage, toward independent and adaptive use. The shift was uneven: some students accepted outputs without examining them, others relied heavily on digital assistance, and others engaged selectively and critically.

Keywords: ChatGPT, digital scaffolding, interaction, Arabic language

ChatGPT sebagai Perancah Digital: Menelusuri Interaksi Mahasiswa Pendidikan Bahasa Arab di Universitas Negeri Jakarta

ABSTRAK
Penelitian ini bertujuan mendeskripsikan bentuk interaksi mahasiswa dengan ChatGPT sebagai *digital scaffolding*, menganalisis keterkaitannya dengan interaksi bersama dosen dan teman sebaya, dan menelusuri kecenderungan perubahannya dalam pembelajaran Qira'ah Mukatsafah. Penelitian ini menggunakan pendekatan kualitatif dengan metode studi kasus tunggal di Prodi Pendidikan Bahasa Arab Universitas Negeri Jakarta pada semester genap 2026. Subjek penelitian adalah dua dosen pengampu dan sepuluh mahasiswa semester dua dari dua di antara delapan kelas mata kuliah tersebut. Peneliti menjadi instrumen utama dengan peran sebagai pengamat nonpartisipan. Data dikumpulkan melalui observasi pada 16 pertemuan, wawancara semi-terstruktur, dan dokumentasi, dengan pedoman observasi dan wawancara. Analisis dilakukan secara tematik dengan pendekatan induktif yang mengadaptasi langkah Braun dan Clarke, dan diinterpretasikan melalui teori *scaffolding*, sedangkan keabsahan data mengacu pada kriteria Lincoln dan Guba. Hasil penelitian menunjukkan lima bentuk interaksi mahasiswa dengan ChatGPT: pencarian makna dasar, klarifikasi dan pendalaman makna, verifikasi pemahaman, pengorganisasian hasil belajar, serta pengembangan kemandirian membaca. Interaksi tersebut tidak berdiri sendiri. Mahasiswa membandingkan jawaban ChatGPT dengan konteks teks, penjelasan dosen, dan diskusi teman, sehingga dukungan terdistribusi di antara ketiganya, sementara interaksi pedagogis tetap diperlukan untuk memastikan ketepatan tafsir. Selama periode pengamatan, penggunaan ChatGPT cenderung bergeser dari tahap terarah, melalui tahap eksploratif dan berulang, menuju penggunaan yang mandiri dan adaptif. Pergeseran ini tidak merata: sebagian mahasiswa menerima jawaban tanpa menelaahnya, sebagian bergantung pada bantuan digital, dan sebagian lain bersikap selektif dan kritis.

Kata kunci: ChatGPT, digital scaffolding, interaksi, pendidikan bahasa Arab

Submitted	Accepted	Published
05/11/2026	16/11/2026	21/11/2026

Citation	Marwa, A., Anjani, F. F., Fauziah, F., Chakam, R. A., & Setiadi, S. (2026). ChatGPT sebagai Perancah Digital: Menelusuri Interaksi Mahasiswa Pendidikan Bahasa Arab di Universitas Negeri Jakarta. *Jurnal Pembelajaran Bahasa dan Sastra, Volume 5, Nomor 6, November 2026, 5297-5310*. DOI: https://doi.org/10.55909/jpbs.v5i6.1948

Publisher
Raja Zulkarnain Education Foundation

https://pembahas.dialeks.id/index.php/jp
p-ISSN : 2809-5367
e-ISSN : 2809-6355
Jurnal Pembelajaran Bahasa dan Sastra
Volume 5, Nomor 6, November 2026
DOI: https://doi.org/10.55909/jpbs.v5i6.1948

INTRODUCTION

Reading is a core skill in Arabic language learning because it serves as the gateway to many bodies of knowledge. Understanding Arabic texts requires students to master vocabulary and sentence structure and then to connect meaning across sentences within the text (Grabe & Stoller, 2020). In the Arabic Language Education (PBA) Study Program at Universitas Negeri Jakarta (UNJ), Qira'ah Mukatsafah is an intensive reading course for second-semester students. It aims to develop their ability to understand vocabulary in context, identify main ideas and supporting information, grasp explicit and implicit information, analyze relationships across sentences and paragraphs, summarize texts in their own words, and read independently. The texts are descriptive, narrative, informative, and simple expository passages of two to five paragraphs, at an elementary to lower-intermediate level. Students at this stage have learned basic vocabulary and basic nahwu and sharaf, but their mastery varies. They still struggle with new vocabulary, with analyzing complex sentence structures, with locating main ideas and implicit meanings, and with using intensive reading strategies independently. The main challenge is therefore to build deep, contextual understanding rather than merely knowing the meanings of words, and the course requires students to process texts gradually and repeatedly, which makes the need for learning support especially clear.

At the same time, generative artificial intelligence such as ChatGPT is increasingly accessible and responds instantly. Students can use it to look up word meanings, translate sentences, and clarify content within seconds, but this convenience may also lead them to use it mainly for quick meanings or translations, bypassing the cognitive processes of independent comprehension. Studies outside Arabic point to this concern. A qualitative study of university students reported that reliance on ChatGPT ranged from selective help with vocabulary and grammar to extensive dependence on full-text translation, with excessive reliance potentially reducing independent learning and critical thinking (*English Students' Dependency on ChatGPT in Academic Translation*, 2026). Kim et al. (2025) likewise identified concerns about overuse and overreliance on AI-based translation tools in EFL reading and vocabulary instruction.

Studies in Indonesian Arabic language education show similar orientations. Murdani et al. (2025) found that translation was among the areas in which PBA students at UINSI Samarinda were most interested in using ChatGPT, alongside writing and reading comprehension. Anwar and Mufidah (2024) reported that 55% of students in an Arabic research specialization class at UIN Maulana Malik Ibrahim Malang used AI for translation and 50% for text paraphrasing. Rahman et al. (2026), studying 190 Arabic Language Education students from several Islamic universities, identified an orientation toward instant academic purposes, particularly the use of ChatGPT's translation feature to understand Arabic texts more quickly, and Zahro et al. (2026) cautioned that excessive dependence may undermine independent and critical reading without appropriate instructional guidance. Caution toward AI output is also relevant in the Arabic context: an evaluation of Arabic reading materials produced by AI systems found English influence that led to unnatural expressions and syntactic inconsistencies, even though the tools generated a variety of attractive questions and content (Allaithy & Zaki, 2025). ChatGPT therefore cannot simply be used as is, without accompanying pedagogical interaction. None of these studies provides direct evidence from UNJ students, and no preliminary data from UNJ are claimed here. They do, however, show a pedagogical concern that warrants investigation in the context of Qira'ah Mukatsafah: whether second-semester students use ChatGPT to support their understanding of Arabic texts or mainly as a shortcut to immediate translation.

The idea of appropriate learning support originates from the concept of scaffolding. Wood

https://pembahas.dialeks.id/index.php/jp
p-ISSN : 2809-5367
e-ISSN : 2809-6355

et al. (1976) described it as assistance that enables a learner to complete a task that he or she cannot yet accomplish alone. The concept is rooted in Vygotsky's (1978) Zone of Proximal Development (ZPD), that is, the distance between what is achieved independently and what can be achieved with the help of others. Such assistance is temporary and adjusts to the learner's needs so that the learner becomes increasingly independent. As technology has developed, scaffolding has been extended to digital support (digital scaffolding) that combines technology with social interaction and cognitive activity (Abdullah et al., 2026). Within this framework, interaction is the place where support operates, so how students interact with ChatGPT determines whether the tool functions as scaffolding or merely as a shortcut. Effective scaffolding is characterized by three features: contingency, the gradual withdrawal of support (*fading*), and transfer of responsibility (Van de Pol et al., 2010). Because scaffolding in a classroom is rarely supplied by a single source, support may be distributed across several agents and tools (Puntambekar & Kolodner, 2005), which makes it necessary to ask what each source contributes. In this study, contingency was examined through how support was adjusted to students' difficulties, fading through the reduction of support over time, and transfer of responsibility through students' growing initiative in using and evaluating support. Research on ChatGPT in reading instruction has grown rapidly, but it generally focuses on effectiveness, interest, and perceptions. Ali et al. (2025) involved 120 tenth-grade students in Saudi Arabia and reported a clear improvement in scores in the ChatGPT user group, accompanied by positive responses from the students. Aditia's (2025) review showed that most studies highlight improvements in comprehension, motivation, and engagement, whereas in-depth studies of the pedagogical dimension, particularly the scaffolding and ZPD frameworks, remain limited. Studies of learners' interaction with ChatGPT are beginning to emerge. Huang (2025) studied ten Chinese students learning Spanish and found that they mainly sought help with vocabulary, reading comprehension, and written expression, with only a small proportion continuing beyond one round of prompts and answers, and pointed to the teacher–AI–learner relationship as a new dimension of interaction. Another recent study found a shift toward selective and strategic AI use among foreign language learners (Ironsi & Bensen Bostanci, 2026).

This review reveals several gaps. First, most studies were conducted in English or other foreign language learning, and, to the authors' knowledge, Arabic qira'ah learning has seldom been examined from the standpoint of students' interaction with ChatGPT within a scaffolding framework. Existing Arabic-context studies mainly report interest, usage patterns, and the risk of dependence, with Rahman et al. (2026) approaching interaction from a Vygotskian sociocultural perspective. Second, existing studies mostly address whether ChatGPT is effective or popular, not how students interact with it as scaffolding in a specific reading course. Third, interaction with ChatGPT is rarely analyzed together with interaction with the lecturer and fellow students, and its development over the course of learning is rarely traced. This article addresses these gaps by exploring the interaction of PBA students at UNJ with ChatGPT as digital scaffolding in Qira'ah Mukatsafah.

Accordingly, the research questions are: (1) what forms does students' interaction with ChatGPT as digital scaffolding take in Qira'ah Mukatsafah learning, (2) how are students' interactions with ChatGPT, the lecturer, and fellow students interrelated in understanding Arabic-language texts, and (3) how does students' interaction with ChatGPT tend to change over the observed course of learning? The study aims to describe these forms, analyze how the three kinds of interaction are interrelated, and trace the tendencies in how the interaction changed. Theoretically, it enriches research on scaffolding in technology-based Arabic language learning by affirming that the roles of the lecturer and peers remain important within the digital scaffolding

ecosystem. Practically, for qira'ah lecturers, the findings can serve as a basis for designing reading activities that integrate ChatGPT in a structured way and are oriented toward critical understanding rather than mere instant translation.

METHOD

This study used a qualitative approach with a constructivist perspective because its focus is on understanding students' social and cognitive processes in the learning context, rather than measuring learning outcomes or relationships among variables quantitatively. The method was a case study (Stake, 1995; Yin, 2018). The case is a bounded system, namely digital-scaffolding-based reading instruction among students of the Arabic Language Education (PBA) Study Program at Universitas Negeri Jakarta (UNJ). The design was a single-case embedded case study, which allows in-depth analysis of particular units within the case (Creswell & Poth, 2018). For this article, the units of analysis are students' interaction with ChatGPT, the lecturer, and fellow students.

The study was conducted in the Qira'ah Mukatsafah (Intensive Reading) course within the PBA Study Program at UNJ, Indonesia. The course integrates face-to-face instruction with digital media and platforms to support students' Arabic reading development. Field observations were conducted during the even semester of the 2025/2026 academic year, following the official UNJ academic calendar, which scheduled the instructional period from March 2 to June 27, 2026. The study focused on two of the eight classes offering the course, and observations covered 16 scheduled classroom meetings. These two classes were selected on the basis of accessibility and the willingness of the lecturers and students to participate.

The participants were two course lecturers and ten second-semester students enrolled in Qira'ah Mukatsafah. The students were selected purposively based on several criteria to capture diverse learning characteristics and patterns of interaction with ChatGPT: reading assessment results, lecturers' recommendations, variation in grade point averages (GPAs), and the intensity of their interactions with ChatGPT during Arabic reading activities. This strategy was intended to obtain rich and diverse data on how students with different academic backgrounds and levels of reading proficiency engaged with generative AI, and to explore variation in their needs for digital scaffolding and their approaches to understanding Arabic texts.

The researcher served as the primary research instrument and adopted the role of a non-participant observer (Spradley, 1980). The researcher was present in the classroom to observe instructional activities, students' reading processes, and their interactions with ChatGPT without participating in or intervening in teaching and learning. This approach was intended to preserve the natural classroom setting and minimize the researcher's influence on students' learning activities.

Students used the free version of ChatGPT as a supplementary learning tool. Prompts were formulated primarily in Indonesian. The students used ChatGPT while completing Arabic reading tasks, including identifying the meanings of unfamiliar vocabulary, translating sentences, clarifying textual content, and answering reading comprehension questions. The lecturers permitted ChatGPT as an auxiliary learning resource, but its use remained part of the broader instructional context and did not replace the reading activities themselves. Students also used other digital media, such as Google Translate, digital dictionaries, and NotebookLM. This article focuses on interactions involving ChatGPT.

Data were collected through observation, interviews, and documentation. Classroom observation was conducted systematically across the 16 instructional meetings, using field notes, video recordings, and screen recordings to capture classroom activities, students' interactions with ChatGPT, and the use of digital platforms. Semi-structured in-depth interviews were conducted with the two lecturers and the ten students to explore

https://pembahas.dialeks.id/index.php/jp
p-ISSN : 2809-5367
e-ISSN : 2809-6355

instructional strategies, learning experiences, and participants' perceptions of digital support. Documentation included student assignments, reflective writings, learning management system (LMS) activity logs, digital discussion archives, ChatGPT interaction records, and supporting instructional documents such as lesson plans and curriculum documents. The observation guidelines and interview protocols were reviewed by an expert in Arabic reading instruction at UNJ and revised according to the expert's recommendations.

Data were analyzed using thematic analysis adapted from the steps of Braun and Clarke (2006, 2019) with an inductive-led hybrid approach (Fereday & Muir-Cochrane, 2006). Codes and preliminary themes were first developed inductively from the data, and the emerging themes were then interpreted against scaffolding theory (Wood et al., 1976; Van de Pol et al., 2010). The analysis was conducted manually by one researcher through an iterative process: (1) familiarization with the data through repeated reading of observation notes, interview transcripts, and digital interaction records; (2) generating initial codes from meaningful data segments reflecting students' interactions with ChatGPT and their use of digital support; (3) grouping related codes into broader analytical categories; (4) constructing preliminary themes; and (5) reviewing, refining, and defining the themes through cross-source comparison. An analytical record documented the progression from raw data to codes, categories, and final themes. For example, students' attempts to ask ChatGPT about unfamiliar vocabulary were initially coded as vocabulary clarification, grouped into the category of meaning clarification, and subsequently interpreted as part of the theme Clarification and Deepening of Meaning. For this article, the analysis focused on empirical evidence of students' interactions with ChatGPT, including their strategies for seeking basic meanings, clarifying and deepening textual understanding, verifying comprehension, organizing learning outcomes, and developing reading independence.

Data trustworthiness followed the criteria of Lincoln and Guba (1985). Credibility was enhanced through source and method triangulation, member checking, and repeated observation across the 16 meetings. Source triangulation compared information from the two lecturers and ten students, while method triangulation examined consistency across classroom observations, semi-structured interviews, and documentary evidence, particularly students' ChatGPT interaction records and learning assignments. Member checking involved both lecturers and selected student participants, who received summaries and interpretations of the findings to verify that the researchers had understood their experiences and perspectives correctly. Their feedback was considered in refining the interpretations. Transferability was supported through thick description of the research setting, participant characteristics, instructional context, and learning activities. Dependability was maintained by systematically documenting the research procedures, data collection, manual coding decisions, and analytical stages so that the development of the findings can be traced. Confirmability was strengthened through peer debriefing with a fellow academic colleague, who critically reviewed the analytical process and emerging interpretations and examined the consistency between evidence, analytical decisions, and interpretations, so that the findings rest on empirical evidence and not solely on the researcher's subjective views.

Before data collection, all participants were informed about the objectives, procedures, and scope of the study. Participation was voluntary and based on informed consent. Participants were also informed that audio-visual documentation and screen recordings would be made, and their consent was obtained beforehand. To protect privacy and confidentiality, participants were anonymized using codes or pseudonyms in research records and reporting. Digital recordings and other research materials were treated confidentially and used only for research purposes.

https://pembahas.dialeks.id/index.php/jp
p-ISSN : 2809-5367
e-ISSN : 2809-6355
Jurnal Pembelajaran Bahasa dan Sastra
Volume 5, Nomor 6, November 2026
DOI: https://doi.org/10.55909/jpbs.v5i6.1948

RESULTS

The results are presented according to the three research questions: the forms of students' interaction with ChatGPT, their relationship with interactions with the lecturer and peers, and the tendencies in their development during learning. In Qira'ah Mukatsafah learning, students used ChatGPT together with other media such as Google Translate, digital dictionaries, and NotebookLM. The findings below therefore describe the role of ChatGPT within this media ecosystem.

1. Forms of Student Interaction with ChatGPT

The analysis of classroom observations, student interviews, and digital learning records revealed five forms of interaction: (1) looking up basic meanings, (2) clarification and deepening of meaning, (3) verification of understanding, (4) organizing learning outcomes, and (5) developing reading independence. They represent different but interconnected ways in which students engaged with ChatGPT and other digital media to overcome reading difficulties, construct textual understanding, and regulate their learning.

The first form, **looking up basic meanings**, involved using ChatGPT to identify the meanings of unfamiliar Arabic vocabulary, translate sentences, and add diacritical marks (harakat). It occurred mainly when linguistic difficulties interrupted reading. ChatGPT provided immediate lexical meanings and linguistic information that let students continue reading, so it functioned as an initial linguistic scaffold that reduced lexical barriers.

The second form, **clarification and deepening of meaning**, went beyond word-level translation. Students asked ChatGPT to explain sentence meanings, identify the grammatical functions of words, clarify textual intentions, and establish relationships among parts of a passage. Rather than accepting literal translations, they sought explanations of how linguistic elements contributed to the overall meaning. This indicates a movement from lexical comprehension toward contextual and interpretive understanding, with ChatGPT acting as a cognitive scaffold that directed attention to relevant linguistic and semantic features.

The third form, **verification of understanding**, involved comparing students' own interpretations with responses from ChatGPT or other translation tools. When discrepancies occurred, students reconsidered their interpretations, reformulated questions, or consulted other digital sources. They did not always accept AI-generated responses without examination and used ChatGPT as an external reference for checking the accuracy and contextual fit of their understanding.

The fourth form, **organizing learning outcomes**, involved recording vocabulary meanings, compiling summaries, and highlighting important information in digital documents, particularly Google Docs and personal digital notes. Unlike the first three forms, which occurred mainly through direct interaction with ChatGPT, this form extended learning into organizing and preserving information. It helped students maintain continuity in their understanding and revisit vocabulary and concepts they had already met.

The fifth form, **developing reading independence**, concerned students' growing initiative in identifying reading difficulties, formulating questions, seeking explanations, and checking their own understanding through digital resources. Students increasingly started learning activities without waiting for the lecturer's explanation and determined for themselves what they needed to understand and how to get support. This suggests an emerging shift toward learner-regulated reading.

As Table 1 shows, the first three forms mainly concern obtaining, clarifying, and verifying information during reading, whereas the fourth and fifth extend toward knowledge organization and self-directed learning. The forms were not a fixed or linear sequence: students moved between them depending on the difficulty of the text, their prior knowledge, and the kind of help needed.

https://pembahas.dialeks.id/index.php/jp
p-ISSN : 2809-5367
e-ISSN : 2809-6355

Table 1
Forms of Student Interaction with ChatGPT and Digital Media in Qira'ah Mukatsafah Learning

Form of interaction	Student activities	Empirical evidence	Scaffolding function
Looking up basic meanings	Asking for word and sentence meanings and requesting harakat to facilitate reading	Classroom observation, March 13, 2026; screen-recording excerpts	Reduces lexical and linguistic barriers to reading
Clarification and deepening of meaning	Asking for explanations of sentence intentions, grammatical functions, and relationships among textual elements	Classroom observation, March 13, 2026; screen-recording excerpts	Directs attention to relevant linguistic and semantic features
Verification of understanding	Comparing personal interpretations with ChatGPT responses or machine translations and revising interpretations when necessary	Classroom observation, March 13, 2026; screen-recording excerpts	Provides an external reference for evaluating and refining interpretations
Organizing learning outcomes	Recording meanings, compiling summaries, and highlighting important information in digital documents	Classroom observation, March 13, 2026; Google Docs and digital notes	Supports knowledge organization and continuity of understanding
Developing reading independence	Independently identifying difficulties, asking questions, seeking explanations, and checking comprehension	Classroom observation, March 13, 2026; interview and screen-recording evidence	Encourages learner initiative and self-regulation in reading

The forms also differed in depth and purpose. Looking up basic meanings addressed immediate linguistic difficulties, clarification involved more interpretive engagement with the text, and verification added an evaluative dimension. Organizing learning outcomes and developing independence extended digital support beyond problem-solving toward knowledge management and self-regulated learning.

Immediate linguistic assistance did not, however, necessarily lead to comprehensive understanding. One student explained that translation tools and ChatGPT let him understand individual words, but he still struggled to connect their meanings across a whole paragraph and to find its main idea (M1, interview, March 12, 2026). This illustrates the distinction between lexical comprehension and global text comprehension. Classroom observation also showed that students sometimes repeated the same question in different wording and compared responses from several media until they found an explanation that fit the textual context. The usefulness of ChatGPT thus depended not only on its answers but on students' ability to formulate relevant prompts, interpret the information, and judge its contextual suitability. The quality of digital scaffolding was partly mediated by students' own linguistic knowledge, questioning strategies, and evaluative judgment.

2. Relationships among Interaction with ChatGPT, the Lecturer, and Peers

Students' interactions with ChatGPT were closely interconnected with their interactions with the lecturer and peers. ChatGPT was generally the first source of support, used to identify unfamiliar vocabulary, translate sentences, and obtain preliminary explanations When sentences were long, grammatical structures complex, or meanings could not be captured by literal translation, students turned to the lecturer or discussed their interpretations with peers. They therefore treated

Jurnal Pembelajaran Bahasa dan Sastra
Volume 5, Nomor 6, November 2026
DOI: https://doi.org/10.55909/jpbs.v5i6.1948

ChatGPT as an accessible source of preliminary help rather than a definitive authority on the text.

The lecturer addressed difficulties that required deeper linguistic and contextual interpretation. One lecturer reported that students often brought questions to class after trying to understand the text with ChatGPT, concerning the grammatical functions of words, sentence structure, and the intended meaning of paragraphs, and that these questions became the starting point for explanation and discussion (D1, interview, March 11, 2026). The use of ChatGPT did not remove the lecturer's role. It shifted some classroom interaction from basic vocabulary explanation toward grammatical relationships, contextual meaning, and textual interpretation.

Peer interaction also contributed to constructing understanding. Students brought ChatGPT's explanations into group discussions, compared interpretations, and checked surrounding sentences to see whether proposed meanings fit the context. One student described how discussion with classmates helped her reconsider interpretations from digital translation tools (M2, interview, March 11, 2026), and another stressed the importance of discussing different interpretations before choosing the most appropriate meaning (M3, interview, March 9, 2026). Observation on March 13, 2026, showed that students did not simply reproduce ChatGPT's answers. When interpretations differed, they revisited the preceding and following sentences for contextual clues that could support or challenge their understanding.

Peer interaction did not always help. Differences in competence and confidence sometimes led to discussions dominated by more confident students, and in other cases discussions stalled without a shared interpretation. Collaboration therefore did not guarantee accurate comprehension, and the lecturer's guidance remained important for facilitating discussion, evaluating competing interpretations, and clarifying unresolved difficulties.

Overall, the three sources were complementary and not interchangeable. ChatGPT gave immediate preliminary linguistic explanations, the lecturer contributed pedagogical guidance, linguistic expertise, and contextual clarification, and peers offered collaborative interpretation and negotiation of meaning. From a scaffolding perspective, support was distributed across technological and interpersonal resources, and its effectiveness depended on how ChatGPT's explanations were examined, discussed, and validated through pedagogical and social interaction.

3. Tendencies in the Development of Student Interaction with ChatGPT during Learning

Observations across the 16 instructional meetings showed a tendency toward change in how students interacted with ChatGPT and other digital media. These changes appeared in how students accessed digital help, selected learning strategies, evaluated generated responses, and integrated information into their understanding of Arabic texts. Three analytical tendencies were identified: guided interaction, exploratory and repetitive interaction, and independent and adaptive interaction. They are patterns across the instructional process, not rigid stages that every student went through.

Guided interaction. Students relied on the lecturer's instructions when using digital media for reading. The lecturer played a relatively dominant role, directing students to particular applications, explaining how to access digital help, and demonstrating how translation tools could resolve basic linguistic difficulties. Students used ChatGPT and other resources in response to these directions rather than selecting tools or developing strategies on their own, and the lecturer's support was relatively intensive.

Exploratory and repetitive interaction. As students became familiar with the resources, they experimented with ways of getting explanations. They reformulated prompts, repeated questions in different wording, and compared ChatGPT's

https://pembahas.dialeks.id/index.php/jp
p-ISSN : 2809-5367
e-ISSN : 2809-6355

responses with other translation applications or digital sources. When an answer did not match the meaning of the text, they tended to look for alternatives instead of accepting the first response, which shows a growing awareness that AI answers needed contextual evaluation. The lecturer's role shifted from direct explanation toward answering follow-up questions, clarifying complex structures, and guiding students to examine textual meaning, so classroom interaction became more focused on interpreting and analyzing the text.

Independent and adaptive interaction. Some students showed growing initiative in choosing digital resources and strategies according to their reading needs. They identified specific comprehension difficulties, formulated more focused prompts, compared explanations from different sources, and reconsidered results before incorporating them. They used digital resources selectively and adjusted their strategies when information was insufficient or inconsistent with the text. Correspondingly, the lecturer reduced direct assistance by giving guiding questions and encouraging students to interpret sentences and paragraphs independently.

Table 2
Tendencies in the Development of Student Interaction with ChatGPT during Learning

Developmental tendency	Characteristics of Student Interaction with ChatGPT and Digital Media	Lecturer's role
Guided interaction	Using digital applications according to lecturer instructions; seeking help with unfamiliar vocabulary, sentence translation, and basic reading difficulties	Directing digital media use, demonstrating strategies, and providing relatively intensive assistance
Exploratory and repetitive interaction	Reformulating prompts, repeating questions, comparing ChatGPT responses with other digital sources, and seeking alternative explanations when results are inadequate	Responding to follow-up questions, clarifying complex structures, and guiding students toward textual analysis
Independent and adaptive interaction	Selecting appropriate media and reading strategies, comparing and evaluating generated responses, and integrating information according to textual context	Gradually reducing direct assistance and encouraging independent interpretation through guiding questions

The development was not uniform. Three patterns of response to digital assistance could be distinguished Some students accepted generated explanations without examining their accuracy or contextual relevance, so their engagement with the broader meaning of the text stayed limited. Others relied heavily on digital assistance whenever they met a difficulty, which sometimes reduced opportunities to build their own strategies for unfamiliar vocabulary and complex sentences. A third group engaged selectively and critically: they compared responses from different sources, examined how explanations related to the surrounding text, and adjusted their interpretations when inconsistencies appeared. This last pattern pointed to a stronger orientation toward self-regulated reading.

These patterns show that greater familiarity with ChatGPT did not automatically lead to greater reading independence. Development depended partly on how students engaged with the information, namely whether they could question, evaluate, and contextualize it, and so should be judged by the quality of engagement and not only by frequency of use. From a scaffolding perspective, responsibility gradually shifted: the lecturer first provided substantial direction while ChatGPT served as an additional source of

linguistic support, then students' interactions came to involve exploration, comparison, and verification, and some students reached more independent and adaptive practices as the lecturer's direct assistance decreased. The transition remained uneven, which indicates that digital scaffolding alone was not enough to ensure independent reading.

DISCUSSION

ChatGPT as a scaffold at the word level, and the role of the questioner

The five forms of interaction can be read from two perspectives. From the perspective of scaffolding functions (Wood et al., 1976), the first two forms reduce the degrees of freedom of the reading task and mark critical features of the text, so students can keep reading without being stalled by lexical or grammatical difficulties. The third and fourth forms position ChatGPT's answers as a point of comparison and a learning archive, and the fifth points toward the transfer of responsibility. From the perspective of the risk of shortcuts, raised in the introduction, M1's experience shows that support can remain at the word level. He understood word by word but could not grasp the main idea of the paragraph. This is consistent with the distinction in reading research between lower-level processes (word recognition and syntax) and higher-level processes (building a coherent model of the text) (Grabe & Stoller, 2020). Since the depth of interaction depended on how students formulated their questions, this limit is better read as an interplay between the tool and its user than as a property of ChatGPT alone. In this study's data, ChatGPT was used mainly to overcome word-level barriers, whereas paragraph-level understanding required other support. Because learning outcomes were not measured, this is a pattern in students' use and not evidence of effectiveness. It also means the study neither confirms nor challenges the gains in reading proficiency reported by Ali et al. (2025).

The repeated questioning and cross-media comparison seen here differ from Huang's (2025) finding that only a small proportion of students' interactions with ChatGPT went beyond one round of prompts and answers. The difference may be related to the lecturer-guided classroom context, but this is a conjecture that needs testing in other cases.

Distributed scaffolding and the lecturer as verifier

The relationships among the three sources of interaction show that scaffolding in this case was distributed across ChatGPT, the lecturer, and peers (Puntambekar & Kolodner, 2005), each addressing a different kind of difficulty. ChatGPT supported initial exploration. The lecturer bridged gaps that digital media could not handle, namely literal translation, long and complex structures, and the fit of an interpretation to context. Peers provided a space for comparing and negotiating meaning.
The difficulties students encountered with literal translation are consistent with an evaluation of AI-generated Arabic reading materials that found English influence producing unnatural expressions and syntactic inconsistencies (Allaithy & Zaki, 2025). This gives a further reason why ChatGPT's output needs pedagogical checking. The findings also support Huang's (2025) idea of the teacher–AI–learner relationship as a new dimension of interaction, here extended to include peers. Peer interaction was not always ideal, however. Discussions could stall without agreement or be dominated by a confident student, so the lecturer's role as verifier remained necessary. Collaboration alone did not guarantee accurate comprehension.

Contingency, fading, and transfer of responsibility

The tendencies in the third result are consistent with the three features of effective scaffolding: contingency, the gradual withdrawal of support (*fading*), and transfer of responsibility (Van de Pol et al., 2010). Contingency was visible mainly in the lecturer's responses and in students' turning to the lecturer when translations were inadequate. Fading was visible in the reduction of the lecturer's

https://pembahas.dialeks.id/index.php/jp
p-ISSN : 2809-5367
e-ISSN : 2809-6355

direct help and the increase in guiding questions. ChatGPT by itself does not diagnose a student's level or reduce its support automatically. In this case, contingency and fading therefore depended on the lecturer's task design and on students' ability to regulate their own use (Zimmerman, 2002).

The move toward selective use is consistent with other findings that foreign language learners are shifting toward selective and strategic AI use (Ironsi & Bensen Bostanci, 2026). Independence needs to be read cautiously, however, because it can turn into dependence, as with students who accepted outputs without examining them or who turned to digital help at every difficulty. The three patterns of use show that greater familiarity with ChatGPT did not automatically lead to greater reading independence. The stages should also be read as tendencies within the observed period, not as a sequence every student follows.

Implications for practice

Practically, the findings suggest that qira'ah lecturers should:

1. design tasks that require students to compare and verify ChatGPT's answers against the text.
2. train students to formulate questions that go beyond word meaning, such as asking about the relationships among sentences or the main idea of a paragraph.
3. check the accuracy of ChatGPT's diacritics and explanations together with students.
4. plan the gradual reduction of support so that responsibility is transferred to students.

Strengths and limitations

This study has three strengths. First, it examines students' interaction with ChatGPT together with their interaction with the lecturer and peers, and traces how these interactions tended to change over time. According to Aditia's (2025) review, this perspective has received limited attention in research on ChatGPT and reading comprehension. Second, it was conducted in Arabic qira'ah instruction, which, to the authors' knowledge, remains relatively underexplored from the standpoint of student–AI interaction and scaffolding. Third, it draws on several data sources (observation, interviews, and documentation), which gives a fuller picture of the interaction patterns and the instructional processes around them.

Several limitations should be acknowledged.

1) The study is a single qualitative case within one semester, with observation in two classes. Although the instructional process was observed across 16 meetings, the findings reflect a particular context and cannot establish a universal pattern. The tendencies in the third result are analytical patterns, not a confirmed or linear developmental sequence.
2) The study relied on observation, interviews, and documentation without measuring reading proficiency. It therefore describes how ChatGPT supported students' reading activities but cannot say whether its use produced measurable improvement.
3) Interaction with ChatGPT was difficult to separate from the use of other media, such as translation applications and digital dictionaries. The analysis focused on ChatGPT-related interactions, but the findings should be understood within a broader digital environment in which several resources were used at once.
4) The linguistic accuracy of ChatGPT's responses, including translations, grammatical explanations, and the diacritics (harakat) it added, was not systematically evaluated. The findings concern how students used and responded to AI-generated assistance, not the objective reliability of its output.

Future research could address these limitations by adding reading proficiency assessments, systematic evaluation of AI-generated linguistic responses, and longitudinal designs across different

institutions, proficiency levels, and types of reading courses. The findings are intended as contextually grounded analytical insights, not as statistically generalizable conclusions.

CONCLUSION

This study concludes that ChatGPT can function as digital scaffolding in Qira'ah Mukatsafah learning through five forms of student interaction: looking up basic meanings, clarification and deepening of meaning, verification of understanding, organizing learning outcomes, and developing reading independence. These forms did not occur separately. They were connected to students' interaction with the lecturer and peers, so that scaffolding was distributed across the three sources. ChatGPT served as a cognitive mediator for the initial exploration of Arabic texts, while the lecturer remained important in directing learning, verifying the accuracy of interpretation, and giving contextual explanations. Discussion with peers gave students a space to compare and negotiate the meaning of the text.

As learning proceeded, students' interaction tended to shift from lecturer-directed use of ChatGPT toward more independent and adaptive use, although not uniformly across students. Some accepted generated responses without examining them, some relied on digital help at every difficulty, and others engaged selectively and critically. The shift therefore did not occur automatically. It depended on pedagogical guidance and on students' ability to evaluate AI-generated responses critically.

These findings have implications for teaching qira'ah. ChatGPT can be integrated into structured reading activities oriented toward critical understanding rather than instant translation. Lecturers can design activities that encourage students to formulate questions, compare ChatGPT's responses with the context of the text, verify their understanding through discussion, and gradually take on responsibility and independence in reading. ChatGPT should be positioned as a complement to the learning process and not as a replacement for the lecturer or for interaction among students.

Because the study was limited to one institution, one semester, and two classes, future research should examine digital scaffolding in more diverse contexts, in terms of institutions, students' Arabic proficiency levels, and types of reading skills courses. It should also measure reading proficiency and evaluate the linguistic accuracy of AI-generated responses systematically.

ACKNOWLEDGMENTS

The authors thank the academic advisor for the guidance, constructive input, and continuous support throughout the research process. The authors also thank the lecturers of the Qira'ah Mukatsafah course in the Arabic Language Education Study Program, Faculty of Languages and Arts, Universitas Negeri Jakarta, for their cooperation and contributions to the implementation of this research. Special thanks go to all participating students who shared their learning experiences, took part in the research activities, and provided valuable insights that made this research possible.

ETHICAL STATEMENT

This study was conducted in accordance with ethical principles for research involving human participants. Informed consent was obtained from all participants prior to data collection. Participants were informed about the purpose and procedures of the study, and their participation was voluntary. Consent was also obtained for audiovisual documentation, including screen recordings, during the learning activities. Participants' identities were protected using pseudonyms or identification codes, and the collected data were used solely for research purposes.

https://pembahas.dialeks.id/index.php/jp
p-ISSN : 2809-5367
e-ISSN : 2809-6355

REFERENCES

Abdullah, A. D., Izhar, N. A., & Samsudin, M. A. (2026). Bridging Gaps with Technology: A Systematic Review of Digital Scaffolding in ESL Classrooms. *EDUCATUM Journal of Social Sciences, 12*, 72–87.

Aditia, G. R. (2025). Mapping The Use of Chatgpt to Support Reading Comprehension in EFL Context: A Scoping Review. *Electronic Journal of Education, Social Economics and Technology, 6*(1), 120. https://doi.org/10.33122/ejeset.v6i1.974

Ali, M. M., Alaa, A. M., Alharbi, W., & AlQurashi, I. (2025). Investigating The Impact of Chatgpt on Reading Proficiency in EFL Context. *International Journal of Technology in Education, 8*(4), 1222–1244. https://doi.org/10.46328/ijte.1563

Allaithy, A., & Zaki, M. (2025). Evaluation Of AI-Generated Reading Comprehension Materials for Arabic Language Teaching. *Computer Assisted Language Learning*. https://doi.org/10.1080/09588221.2025.2474037

Anwar, M. R., & Mufidah, N. (2024). Istikhdâm Al-Dhakhâ' Al-Icminâ'î (AI) fî Ta'lîm lullâb baff Al-Takhaccuc fî Bath Al-Lughah Al-'Arabiyyah: Penggunaan Kecerdasan Buatan (AI) dalam Pembelajaran Mahasiswa Kelas Peminatan Penelitian Bahasa Arab. *Al Kafaah: Journal of Arabic Language and Linguistics Education, 3*(1). https://doi.org/10.52491/alle.vi.186

Braun, V., & Clarke, V. (2006). Using Thematic Analysis in Psychology. *Qualitative Research in Psychology, 3*(2), 77–101. https://doi.org/10.1191/1478088706qp063oa

Braun, V., & Clarke, V. (2019). Reflecting on Reflexive Thematic Analysis. *Qualitative Research in Sport, Exercise and Health, 11*(4), 589–597. https://doi.org/10.1080/2159676X.2019.1628806

Creswell, J. W., & Poth, C. N. (2018). *Qualitative Inquiry and Research Design: Choosing among Five Aapproaches* (4th ed.). Thousand Oaks: SAGE Publications.

English Students' Dependency on Chatgpt in Academic Translation: A Qualitative Case Study. (2026). *ELT-Lectura*. https://journal.unilak.ac.id/index.php/ELT-Lectura/article/view/34301

Fereday, J., & Muir-Cochrane, E. (2006). Demonstrating Rigor Using Thematic Analysis: A Hybrid Approach of Inductive and Deductive Coding and Theme Development. *International Journal of Qualitative Methods, 5*(1), 80–92. https://doi.org/10.1177/160940690600500107

Grabe, W., & Stoller, F. L. (2020). *Teaching and Researching Reading* (3rd ed.). London: Routledge.

Huang, S. (2025). Spanish Language Learning in the AI Era: AI as a Scaffolding Tool. *Journal of China Computer-Assisted Language Learning*. https://doi.org/10.1515/jccall-2024-0026

Ironsi, & Bensen Bostanci. (2026). Enhancing The Reading Comprehension and Autonomy of Foreign Language Students Using Generative AI-Integrated Assistant. *Frontiers in Education*. https://doi.org/10.3389/feduc.2026.1763238

Kim, H. S., Cha, Y., & Kim, N. (2025). Integrating Generative AI and Machine Translation into EFL Reading And Vocabulary Instruction. *Multimedia-Assisted Language Learning, 28*(3), 55–80. https://www.kci.go.kr/kciportal/landing/article.kci?arti_id=ART003237364

Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic Inquiry*. Thousand Oaks: SAGE Publications.

Murdani, E., Rahman, N. F., Yasiron, A. M., Roziqi, M. A., & Ilmiani, A. M. (2025). Minat Mahasiswa Menggunakan Chatgpt dalam Pembelajaran Bahasa Arab: Studi pada mahasiswa PBA UINSI Samarinda [Students' Interest in Using Chatgpt in Arabic Language Learning: A study of PBA students at UINSI Samarinda]. *BENJOLE: Borneo Journal of Language and Education, 5*(1), 155–168. https://doi.org/10.21093/benjole.v5i1.10189

Puntambekar, S., & Kolodner, J. L. (2005). Toward Implementing Distributed Scaffolding: Helping Students Learn Science from Design. *Journal of Research in Science Teaching, 42*(2), 185–217. https://doi.org/10.1002/tea.20048

Rahman, N. F., Murdani, E. Z., Sya'bani, M. Z., & Ilmiani, A. M. (2026). Interaksi Mahasiswa dengan Chatgpt dalam Pembelajaran Bahasa Arab: Perspektif teori sosiokultural Vygotsky. *Lisanul Arab, 15*(2). https://doi.org/10.15294/laa.v15i2.63731

Spradley, J. P. (1980). *Participant Observation*. New York: Holt, Rinehart and Winston.

Stake, R. E. (1995). *The Art of Case Study Research*. Thousand Oaks: SAGE Publications.

Van de Pol, J., Volman, M., & Beishuizen, J. (2010). Scaffolding In Teacher–Student Interaction: A Decade of Research. *Educational Psychology Review, 22*(3), 271–296. https://doi.org/10.1007/s10648-010-9127-6

Vygotsky, L. S. (1978). *Mind In Society: The Development of Higher Psychological Processes*. Harvard: Harvard University Press.

Wood, D., Bruner, J. S., & Ross, G. (1976). The Role of Tutoring in Problem Solving. *Journal Of Child Psychology and Psychiatry, 17*(2), 89–100. https://doi.org/10.1111/j.1469-7610.1976.tb00381.x

Yin, R. K. (2018). *Case Study Research and Applications: Design and Methods* (6th Ed.). Thousand Oaks: SAGE Publications.