



## ***LEXIMO AI IN DAILY ENGLISH CONVERSATION: ISLAMIC BOARDING SCHOOL STUDENTS' PERCEPTIONS***

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### ***Abstract***

*This study explores the use of Leximo AI, an AI-powered English conversation tool, by students at an Islamic boarding school with limited English exposure. Using a qualitative case study involving questionnaires and interviews with 20 male students aged 12–20, findings reveal that Leximo AI is perceived as user-friendly and effective in improving vocabulary and speaking skills. However, concerns include overreliance on the app and reduced teacher interaction. Students emphasized the continued importance of classroom learning. The study concludes that Leximo AI can complement traditional instruction, supporting technology integration in religious education under teacher guidance.*

**Keywords:** Artificial Intelligence, English, Conversation, Islamic School.

### **INTRODUCTION**

In the digital era, technology has significantly transformed human communication and knowledge exchange. It not only enhances global interaction but also supports the transfer and preservation of intellectual heritage (Doarn & Merrell, 2012; Schuerkens, 2018; von Terzi et al., 2021; Mussey, 2022). In the education sector, technological integration has improved the learning experience, making instruction more engaging and efficient—even in resource-limited contexts with minimal teacher training (Liu et al., 2022; Naik et al., 2020; Raja & Nagasubramani, 2018).

Among the many areas reshaped by technology, language learning stands out. Digital tools allow learners to engage in real-time interactions, receive instant feedback, and build confidence in using the target language (Kaloshina & Sichkarev, 2023; Qureshi et al., 2021). These tools are particularly effective in developing fluency and oral competence (Rahmati et al., 2021; Rintaningrum, 2023). In Indonesia, where English is a vital second

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SMART Journal: Journal of English Language Teaching and Applied Linguistics

language, the emergence of AI-powered platforms has opened new opportunities for learners to develop communication skills in dynamic, interactive environments (Sun et al., 2021).

Despite these advances, educational institutions like *tahfizh*-based Islamic boarding schools (pesantren), which prioritize Quranic memorization and religious studies, tend to lack exposure to digital language-learning tools. While English is included in the curriculum, it is often not integrated into daily practices, and the use of educational technology remains limited.

This underutilization of technology in pesantren contexts creates a learning gap. To address this, the present study investigates the use of Leximo AI, an English-learning application that facilitates real-time conversation practice with native speakers. The application provides topic-based dialogues, designed to build listening and speaking skills in a naturalistic manner. The research was conducted in a *tahfizh* pesantren with learners aged 12 to 20—an ideal environment to explore the intersection of traditional Islamic education and modern AI-supported English instruction.

Previous research has examined the benefits of widely used English-learning apps such as Duolingo, which enhances vocabulary acquisition (Cesarini et al., 2021), ELSA Speak, which improves pronunciation (Syabina & Hz, 2024; Karim et al., 2023), and Cake, which strengthens vocabulary and pronunciation in English for Specific Purposes (Chotimah, 2022). However, no studies have yet focused on Leximo AI, especially in the context of Islamic boarding schools. This study aims to fill that gap.

The main objective is to explore student perceptions and responses toward Leximo AI in improving conversational English. The research seeks to determine whether AI-based tools can meet the learning needs of students in religious schools while also enhancing their confidence and communicative competence.

The study draws on several theoretical frameworks. Krashen's Input Hypothesis (1985) suggests that learners acquire language most effectively when exposed to comprehensible input slightly beyond their current level—something Leximo AI aims to provide through adaptive dialogues. Vygotsky's Sociocultural Theory (1978), particularly the Zone of Proximal Development (ZPD), underlines the importance of social interaction, where Leximo AI can serve as a scaffolded interlocutor.

In the broader field of Computer-Assisted Language Learning (CALL), Warschauer and Healey (1998) outlined a transition from structural to integrative uses of technology in language learning. Leximo AI fits within this integrative phase, offering personalized, interactive features. Prensky's (2001) concept of digital natives further emphasizes that today's learners thrive in media-rich, tech-driven environments.

The study also aligns with the principles of Mobile-Assisted Language Learning (MALL), which allows flexible, student-centered learning through smartphones and tablets (Gharehblagh & Nasri, 2020; Miangah & Nezarat, 2012; Gael & Elmiana, 2021). MALL is shown to improve vocabulary, listening skills, and motivation (Kennedy & Levy, 2008; Huang & Sun, 2008), though it faces design limitations like screen size and educational suitability (Stockwell & Hubbard, 2013). Nonetheless, mobile learning supports autonomy and spontaneous language use—crucial elements for conversational fluency (Mosavi Miangah & Nezarat, 2012).

Recent empirical studies affirm the benefits of AI-based learning tools. Zhang et al. (2023) report improved fluency and pronunciation, while Lee and Kim (2024) find increased speaking confidence and reduced anxiety among students using AI conversation tools. These outcomes demonstrate AI's potential to support active language use and reduce communicative barriers.

In the context of Islamic education, Ahmad and Hassan (2022) highlight the necessity of harmonizing technological innovation with religious and cultural values. Similarly, Rahman et al. (2021) argue for careful adaptation of modern tools to preserve religious identity. Chen and Wong (2023) also support the idea that AI can tailor learning experiences to individual styles and preferences—an advantage in diverse classrooms such as pesantren.

To summarize, this study explores the integration of Leximo AI as a conversational English tool within a tahfizh pesantren. It responds to a clear research gap in AI adoption within religious educational contexts and seeks to contribute insights into how technology can enrich language instruction even in traditionally non-technological environments.

## **RESEARCH METHOD**

This study utilized a qualitative case study approach to examine how students in an Islamic boarding school engage with Leximo AI for learning English, especially conversational skills. The case study method, as defined by Creswell (2007), allows researchers to investigate a phenomenon in its real-life context using multiple data sources. According to Baxter and Jack (2008), this method is well-suited to explore complex issues from various perspectives. In religious education settings such as *pesantren*, where modern technology is not widely adopted, a case study is effective for uncovering patterns of behavior, perception, and adaptation (Dhanda, 2013).

The research was conducted in a *tahfizh* pesantren in North Sumatra and involved 20 male students aged 12 to 20. Participants were selected based on their basic familiarity with AI and their willingness to explore digital learning tools, even though the school primarily emphasizes Quranic and religious studies. About half of the students had prior experience with AI, providing a meaningful foundation for interaction with Leximo AI.

Data collection was conducted in two main stages: a questionnaire and interviews. The questionnaire consisted of 10 items in total—seven Likert-scale items and three open-ended questions. The Likert-scale questions aimed to capture participants' structured responses regarding the usability, usefulness, and perceived effectiveness of Leximo AI. Meanwhile, the open-ended items allowed students to express their impressions and challenges in their own words.

Students were introduced to Leximo AI and used it for one week on a rotational basis. After the usage period, they completed the paper-based questionnaire offline. This format was chosen to ensure accessibility in a low-tech educational setting.

Following the questionnaire, the researchers conducted individual interviews lasting 5–10 minutes with each participant. These interviews were conducted in Bahasa Indonesia to ensure clarity and comfort. Both semi-structured and structured interview techniques were used to balance depth and consistency. The structured part ensured comparability of responses across participants (Campion et al., 1997), while the open-ended segment encouraged participants to elaborate on their experiences.

The interviews focused on three major areas: ease of use of the app, learning experience, and overall attitudes toward the integration of AI in English learning. Students

were encouraged to discuss their preferences, perceived improvements (e.g., in vocabulary or pronunciation), and any obstacles faced, such as reduced teacher interaction or difficulty navigating certain features.

For data analysis, the researchers employed thematic analysis, which is commonly used in qualitative research to identify and interpret patterns across the data. The process began with familiarization through repeated reading of the responses. Key ideas and phrases were coded, then organized into broader themes. These themes were refined to ensure they represented the essence of participants' responses.

The thematic analysis revealed insights into both the advantages and limitations of Leximo AI in a pesantren context. Benefits included enhanced vocabulary retention and improved speaking fluency, while challenges involved limited integration with traditional classroom methods and reduced teacher guidance. By capturing both positive outcomes and critical feedback, this methodology offered a holistic view of how AI-supported English learning can be implemented in a religious education setting.

## **FINDINGS AND DISCUSSION**

### **Findings**

The findings from this study (Table 1) offer an in-depth exploration into the experiences of Islamic boarding school (pesantren) students using the Leximo AI application for English language learning. The results, drawn from both quantitative data (Likert-scale surveys) and qualitative insights (open-ended interviews), paint a nuanced picture of how this AI-powered tool fits into the students' learning environment—highlighting both its advantages and limitations.

**Table 1.** Result of likert scale questionnaire on Boarding School's Student Experiences in Using *Leximo AI* Application.

<b>N o.</b>	<b>Statement</b>	<b>Strongly Agree</b>	<b>Agree</b>	<b>Disagree</b>	<b>Strongly Disagree</b>
1.	Leximo AI is easy to use the first time.	20%	55%	15%	10%
2.	The features in Leximo AI are quite complete.	25%	65%	20%	0%
3.	You often use Leximo AI.	0%	0%	75%	25%
4.	Leximo AI really helps you train your English conversation skills well.	45%	50%	0%	5%
5.	You can always find the information you need on Leximo AI.	35%	40%	25%	0%
6.	You are interested in learning English and practicing English conversation after using Leximo AI.	30%	40%	20%	10%
7.	You facing difficulties or challenges when using Leximo AI.	15%	45%	30%	10%

Statement 1: *“Leximo AI is easy to use the first time.”* A majority of respondents found Leximo AI user-friendly upon first use. Specifically, 20% strongly agreed, and 55% agreed, totaling 75% positive responses. However, 15% disagreed, and 10% strongly disagreed, suggesting that a quarter of the students encountered some initial difficulties navigating the application. This indicates that while the app is generally accessible, improvements may still be needed to support first-time users—particularly those unfamiliar with AI-based interfaces. Given that this pesantren does not regularly integrate technology into its curriculum, even simple digital platforms may require a basic orientation session.

Statement 2: *“The features in Leximo AI are quite complete.”* This statement received highly positive responses, with 25% strongly agreeing and 65% agreeing, amounting to 90% of students expressing satisfaction with the features. Meanwhile, 20% disagreed, and no students strongly disagreed. This reflects a strong approval of Leximo AI’s functional completeness. Students appear to appreciate the app’s conversational scenarios, vocabulary guidance, and interactive design. The absence of “Strongly Disagree” responses is noteworthy, indicating that the application’s feature set is generally sufficient to support students' learning needs.

Statement 3: *“You often use Leximo AI.”* This statement received overwhelmingly negative responses: 75% disagreed, and 25% strongly disagreed. No students reported frequent use. This result highlights a significant gap between user satisfaction and actual usage. While students may appreciate the app, regular engagement remains low. Several factors might contribute to this, including limited device access, time constraints due to religious obligations, or lack of encouragement from teachers. It also raises concerns about sustainability: positive first impressions do not always translate into consistent usage without proper follow-up or institutional integration.

Statement 4: *“Leximo AI really helps you train your English conversation skills well.”* This was one of the most positively received statements, with 45% strongly agreeing and 50% agreeing, totaling 95% positive feedback. Only 5% strongly disagreed, and no one disagreed. This suggests that the app effectively fulfills its primary purpose: supporting English conversation. The high approval rate indicates that students found the dialogue simulations, pronunciation feedback, and interaction scenarios helpful for developing

fluency and confidence. This finding aligns with prior research emphasizing the efficacy of AI tools in enhancing speaking skills (Zhang et al., 2023; Lee & Kim, 2024).

Statement 5: *“You can always find the information you need on Leximo AI.”* Responses to this item were mixed but leaned positive. 35% strongly agreed, and 40% agreed, totaling 75%. However, 25% disagreed, which suggests that while most students could find relevant information, a significant minority faced difficulties. This may be due to interface design, language barriers in menu navigation, or unclear categorization of learning modules. Although the majority were satisfied, there remains a need to refine the app’s accessibility to ensure that all learners—especially beginners—can fully benefit from its resources.

Statement 6: *“You are interested in learning English and practicing English conversation after using Leximo AI.”* This item explores motivational impact. 30% strongly agreed, and 40% agreed, while 20% disagreed and 10% strongly disagreed. This indicates a moderately positive motivational effect, with 70% expressing increased interest in English learning due to Leximo AI. However, the 30% who did not feel more motivated points to the possibility that AI alone is insufficient to spark or sustain motivation for all learners. Some students may require additional social or instructional support to remain engaged in the learning process.

Statement 7: *“You are facing difficulties or challenges when using Leximo AI.”* Challenges in using the application were acknowledged by many students: 15% strongly agreed, and 45% agreed, resulting in 60% acknowledging difficulties. Meanwhile, 30% disagreed, and 10% strongly disagreed. These findings suggest that although students recognize the benefits of the application, technical or contextual obstacles persist. The reported challenges could range from limited digital literacy, inadequate devices or internet access, or even cultural unfamiliarity with interactive learning. This is consistent with findings from Stockwell and Hubbard (2013), who noted that even mobile-assisted language learning tools often face design or compatibility issues in certain learning environments.

The responses from this study demonstrate a nuanced reality. On the one hand, students generally viewed Leximo AI as a beneficial and well-designed tool. It was perceived as effective for conversational English, with most students reporting that they found the features useful and the application helpful in developing speaking skills.

On the other hand, low usage frequency and reported difficulties signal systemic barriers that go beyond the app itself. These include infrastructural limitations, insufficient digital training, and a possible disconnect between technology and the traditional learning environment of the *pesantren*. Although the tool sparked interest for many, sustained engagement requires a more supportive ecosystem—such as teacher facilitation, regular integration into classroom practice, and access to devices.

In short, while Leximo AI holds significant potential for supporting English language development in *pesantren* contexts, its success depends not only on the app's design but also on how it is embedded into the learning culture. Further studies may explore ways to scaffold digital learning in traditional environments to increase both access and long-term impact.

### **Discussion**

This study examined the influence of Leximo AI, an AI-powered English conversation tool, within the unique socio-cultural context of Islamic boarding schools (*pesantren*). Unlike prior studies on applications such as Duolingo (Cesarini et al., 2021), ELSA Speak (Karim et al., 2023), and Cake (Chotimah, 2022), this research focused on the integration of Leximo AI in an environment where learning is embedded in spiritual guidance and strong teacher-student relationships.

Findings revealed that students responded positively to Leximo AI, especially its role in enhancing conversational skills. The app's interactive dialogues support Krashen's Input Hypothesis (1985), which emphasizes the importance of comprehensible input slightly above a learner's current level. Students reported gains in vocabulary and oral fluency, even beyond the formal classroom setting.

Leximo AI's mobile accessibility and ease of use align with the Mobile-Assisted Language Learning (MALL) framework, which promotes flexible, student-centered learning (Miangah & Nezarat, 2012; Sletten, 2021). In the *pesantren* setting—where English exposure is minimal—Leximo AI helped bridge the interaction gap with the target language. This echoes Gael and Elmiana's (2021) view that MALL is particularly valuable in environments where traditional instruction lacks sufficient real-life language engagement. Similarly, Lee and Kim (2024) found that AI-driven conversation tools can enhance learner confidence and participation.

However, the study also identified notable limitations. Drawing from Vygotsky's Sociocultural Theory (1978), the results emphasized the pesantren learners' dependence on teachers for not only instruction but also moral and spiritual guidance. The absence of human scaffolding in AI-based tools like Leximo revealed a disconnect between technological potential and the relational learning models that dominate pesantren education. This highlights the critical role of the Zone of Proximal Development (ZPD) in religious learning environments, as well as the importance of teacher presence for effective learning (Baxter & Jack, 2008).

Students also expressed concern over excessive reliance on the app, potentially diminishing their use of traditional resources and face-to-face interaction with teachers. These concerns mirror Rintaningrum's (2023) findings about digital overuse reducing critical thinking and learner motivation. Similar warnings are echoed by Kaloshina and Sichkarev (2023) and Rahmati et al. (2021), who caution that unbalanced technology use may lead to superficial learning and digital fatigue.

Importantly, the findings affirm Ahmad and Hassan's (2022) call for a culturally respectful approach to technology adoption in Islamic education. Although Leximo AI was well received, it cannot replace the deeply ingrained tradition of teacher-led learning. Rahman et al. (2021) similarly emphasize the necessity of aligning digital innovation with institutional values and educational expectations in pesantren.

Practically, the study underscores the importance of positioning Leximo AI as a complementary tool, not a substitute for teacher instruction. Its asynchronous use allows students to practice English during non-classroom hours, enriching exposure without disrupting the spiritual rhythm of pesantren life. As Raja and Nagasubramani (2018) argue, technology is most effective when it supports rather than competes with existing pedagogical frameworks.

To achieve this, pesantren leaders are encouraged to design structured policies that support responsible AI integration. As Liu et al. (2022) note, the shift toward tech-enhanced learning requires rethinking the role of teachers as facilitators. In pesantren, this includes safeguarding the moral and spiritual dimensions of education that cannot be automated.

Additionally, emotional and social aspects—often missing in digital learning—must be considered. Von Terzi et al. (2021) point out that technology-mediated experiences often lack the depth of human interaction necessary for positive emotional outcomes. In

pesantren, where teacher-student bonds are part of the spiritual journey, digital tools must be viewed as supportive, not substitutive. This is consistent with Prensky's (2001) idea that digital tools should be adapted to specific generational and cultural contexts.

In conclusion, Leximo AI holds strong potential to enrich English language education in Islamic boarding schools by providing flexible, interactive, and personalized practice. However, its implementation must be culturally sensitive and pedagogically aligned. With proper guidance from teachers and clear institutional policies, pesantren can embrace AI as a valuable supplement—balancing technological innovation with the rich traditions of spiritual and relational learning.

## **CONCLUSION**

This study explored Islamic boarding school students' perceptions of using Leximo AI for conversational English learning, revealing that while students appreciated the application's ease of use, vocabulary support, interactivity, and ability to enhance speaking skills, they also expressed concerns about overdependence on the app, reduced teacher interaction, neglect of traditional tools, and distractions from phone usage. Cultural and spiritual considerations were significant, as students highlighted the value of direct learning and spiritual bonds with teachers in the pesantren context. Overall, Leximo AI was seen as a useful supplementary tool, but not a substitute for conventional classroom learning, suggesting that its integration into pesantren education must be balanced to uphold core pedagogical and spiritual principles.

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