

Improving Arabic Speaking Skills Through Memrise: A Case Study in an Indonesian Madrasah

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ABSTRAK

Penelitian ini mengkaji efektivitas aplikasi pembelajaran bahasa digital Memrise dalam meningkatkan keterampilan berbicara bahasa Arab siswa di Madrasah Tsanawiyah Miftahul Ulum Surabaya. Masalah utama yang dihadapi adalah kurangnya kepercayaan diri dan penguasaan kosakata yang menghambat kemampuan berbicara (maharah al-kalam). Menggunakan pendekatan campuran (mixed-methods), penelitian ini menggabungkan analisis kuantitatif pre-test/post-test terhadap 15 siswa dengan data kualitatif dari observasi dan tanggapan siswa. Signifikansi penelitian ini terletak pada bagaimana teknologi digital dapat diintegrasikan ke dalam lingkungan madrasah yang tradisional. Hasil penelitian menunjukkan peningkatan skor rata-rata yang signifikan ($p < 0,05$), dengan kemajuan pada pelafalan, penguasaan kosakata, dan kelancaran berbicara. Siswa juga menunjukkan sikap yang lebih positif, motivasi yang lebih tinggi, dan kemandirian belajar yang lebih besar. Fitur gamifikasi, pengulangan terjadwal, dan dukungan audio asli terbukti sangat efektif. Penelitian ini menyimpulkan bahwa Memrise selaras dengan gaya belajar visual dan auditori siswa madrasah.

ABSTRACT

This study investigates the effectiveness of the Memrise application in improving Arabic speaking skills among students at Madrasah Tsanawiyah Miftahul Ulum Surabaya. The primary research problem stems from the students' lack of confidence and limited vocabulary acquisition, which significantly hinder their oral proficiency (maharah al-kalam). Employing a mixed-methods approach, the research combines quantitative pre-test and post-test analysis involving 15 students with qualitative data from observations and feedback. The significance of this study lies in demonstrating how digital technology can be seamlessly integrated into traditional madrasah environments. Results indicate a statistically significant improvement in average scores ($p < 0.05$), with marked progress in pronunciation, vocabulary mastery, and fluency. Furthermore, students demonstrated more positive attitudes, higher motivation, and greater learning autonomy. Features such as gamification, spaced repetition, and native audio support were found to be highly effective. The study concludes that Memrise aligns well with the visual and auditory learning preferences of madrasah students.

KATA KUNCI

Memrise; Keterampilan Berbicara Bahasa Arab; Pembelajaran Digital; Pendidikan Islam.

KEYWORDS

Memrise; Arabic Speaking Skills; Digital Learning; Islamic Education.

A. Introduction

In today's era of digital transformation, language learning has undergone a significant shift, particularly in terms of media and methods used.¹ Digital technology has become an integral part of education as it enables flexible, interactive, and engaging learning experiences for students. This aligns

¹ George M Chinnery, "Emerging Technologies Going to the Mall: Mobile Assisted Language Learning," 2006.

with assertion that computer technology holds great potential in enhancing language learning, especially in the development of active language skills such as speaking.² In the context of Arabic language learning, one of the main challenges faced by students is the lack of confidence and limited vocabulary acquisition, which hinder their speaking ability. Many learners perceive Arabic as a difficult subject, particularly in speaking skills (maharat al-kalam). Therefore, it is necessary to adopt creative and innovative approaches to increase student motivation and improve the effectiveness of Arabic speaking instruction.³

In the contemporary era of digital transformation, the landscape of language pedagogy has undergone a radical shift, moving from teacher-centric traditionalism toward interactive, technology-driven paradigms. Digital technology is no longer a mere peripheral tool but has become an integral component of modern education, facilitating flexible and engaging learning experiences. Computer-assisted language learning (CALL) and mobile-assisted language learning (MALL) have demonstrated immense potential in fostering active language skills, particularly in the domain of speaking.⁴

In the specific context of Arabic language instruction in Indonesia, learners frequently encounter significant barriers. These include a pervasive lack of self-confidence and a restricted vocabulary, both of which serve as major impediments to oral proficiency, known as maharat al-kalam. Many students perceive Arabic as an exceptionally difficult subject, often leading to disengagement and low motivation.⁵ Consequently, there is an urgent need for innovative and creative instructional approaches that can bridge the gap between theoretical knowledge and practical communication. One digital platform that has gained prominence is Memrise. This application utilizes visual and audio-based repetition techniques to facilitate vocabulary acquisition and memory retention. Memrise offers diverse features such as interactive quizzes, native speaker videos, and voice recordings, which are designed to capture learner attention and provide authentic linguistic input.⁶ While previous research has highlighted the efficacy of Memrise in general foreign language learning, its specific application within the unique sociocultural and pedagogical context of Indonesian madrasahs especially for speaking skills remains under-explored.

This study aims to address this research gap by answering three primary questions: (1) How effective is the Memrise application in improving the Arabic speaking skills of madrasah students? (2)

² Lokanath Mishra, Tushar Gupta, and Abha Shree, "Online Teaching-Learning in Higher Education during Lockdown Period of COVID-19 Pandemic," *International Journal of Educational Research Open 1* (January 1, 2020): 100012, <https://doi.org/10.1016/j.ijedro.2020.100012>.

³ Uril Bahrudin et al., "Obstacles to Learning Speaking Skills among Non-Arabic Speaking Learners in Indonesia," *International Journal of Arabic Teaching and Learning* 07, no. 01 (2023): 46–53.

⁴ Rifda Haniefa et al., "Efektivitas Computer Assisted Language Learning Berbasis Web dalam Meningkatkan Keterampilan Berbicara Bahasa Abstrak," *Journal of Arabic Education & Arabic Studies* 4, no. 1 (2025): 59–72.

⁵ Umiani, "Faktor Penghambat Pembelajaran Bahasa Arab di Mtsn 5 Bireuen," *At-Tarbiyyah* 1, no. 1 (2021): 142–64.

⁶ Wafa Nazli Nur Fadilah and Tatang, "Pemanfaatan Aplikasi Memrise Dalam Pembelajaran Bahasa Arab : Strategi Efektif Untuk Meningkatkan Kosakata Dan Penguasaan Bahasa," *Jurnal Pendidikan Tambusai* 8, no. 2 (2024): 24540–48.

What are the changes in students' attitudes and motivation toward learning Arabic through this digital intervention? and (3) Which specific features of Memrise contribute most significantly to these improvements? By utilizing a mixed-methods approach, this research offers a novel perspective on integrating modern digital tools with traditional Islamic educational values, such as the principles of repetition and discipline.⁷

One of the rapidly growing digital learning tools is Memrise. This application is designed to help users memorize and understand vocabulary through visual and audio-based repetition techniques. Memrise offers a variety of features useful in foreign language learning, including Arabic, such as interactive quizzes, voice recordings, and short videos that capture learners' attention.⁸

The use of Memrise in Arabic speaking skill development has shown promising results in various educational institutions. A study revealed that the structured use of Memrise helps learners expand their vocabulary and improve fluency in speaking.⁹ This is attributed to its communicative, learner-centered approach that also supports independent practice outside the classroom environment.

In the madrasah setting, the integration of technology such as Memrise has not yet been fully optimized. In fact, madrasahs have great potential not only as institutions that teach Islamic knowledge but also as centers for Arabic language instruction. The use of appropriate digital learning tools can support the madrasah curriculum and promote a more holistic and applicable approach to language skill development.¹⁰

This study aims to address that gap by examining the effectiveness of Memrise in improving Arabic speaking skills in a madrasah environment. The focus of the research is on students at the junior Islamic secondary school level (Madrasah Tsanawiyah) as part of Indonesia's formal Islamic education system. A quantitative approach using a pretest–posttest design was employed to objectively measure the students' improvement.¹¹

It is hoped that this research will contribute meaningfully to the development of more engaging, effective, and relevant Arabic language learning models for the digital generation. Furthermore, the results of this study may serve as a reference for Arabic language teachers to creatively integrate technology into their classroom practices. In addition, it may inspire future research on the use of other digital platforms to enhance various language skills in different educational contexts.

⁷ Bahruddin et al., "Obstacles to Learning Speaking Skills among Non-Arabic Speaking Learners in Indonesia."

⁸ Wafa Nazli Nur Fadilah and Tatang Tatang, "Pemanfaatan Aplikasi Memrise Dalam Pembelajaran Bahasa Arab: Strategi Efektif Untuk Meningkatkan Kosakata Dan Penguasaan Bahasa," *Jurnal Pendidikan Tambusai* 8, no. 2 (June 21, 2024): 24540–48.

⁹ Dinda Rizqi Mawaddah, "The Effectiveness of Memrise Application in Teaching Vocabulary," 2023.

¹⁰ Vina Rohmatul Ummah, "Integrasi Teknologi Digital Dalam Pembelajaran Komunikasi Bahasa Arab: Implikasi Psikolinguistik dan Sosiolinguistik," *At-Turost : Journal of Islamic Studies*, February 25, 2024, 80–98, <https://doi.org/10.52491/at.v11i01.127>.

¹¹ John W Creswell and J David Creswell, "Research Design: Qualitative, Quantitative, and Mixed Methods Approaches," 2018.

B. The Use of Memrise to Develop Arabic Speaking Skills

Memrise is a digital language learning platform that focuses on vocabulary acquisition through spaced repetition, gamification, and multimedia content such as audio and video.¹² In Arabic language learning, especially for developing speaking skills, Memrise provides learners with repeated exposure to vocabulary and phrases, helping improve pronunciation and fluency. The inclusion of native speaker recordings allows students to practice accurate pronunciation and intonation, which are critical components of speaking proficiency.

The platform's interactive and game-like features create a motivating and engaging learning environment that encourages consistent practice. This is particularly beneficial for young learners in madrasah settings, where traditional classroom activities may not offer sufficient speaking practice. Mobile-assisted language learning (MALL) tools like Memrise have been shown to increase learner motivation and engagement by providing flexible, personalized, and accessible learning opportunities.¹³ Memrise also enables teachers to tailor learning modules to the specific needs of their students, reinforcing classroom instruction with digital exercises that can be accessed anytime and anywhere.

While Memrise is becoming a go-to tool for vocabulary, there is still a gap in research regarding its impact on Arabic speaking skills. This is particularly true within religious education settings like madrasahs. Meta-analyses of mobile-assisted language learning indicate significant positive effects on second language speaking performance, but studies focusing on Arabic and madrasah settings remain scarce.¹⁴ This gap highlights the need for studies that investigate how Memrise can be integrated effectively into Arabic language teaching to enhance learners' oral communication abilities in these settings.

C. The Advantages of Memrise in Language Learning

Memrise is widely recognized as an effective digital platform that supports language learning through its unique combination of gamification, spaced repetition, and multimedia content. One of the core strengths of Memrise lies in its use of spaced repetition, which enhances long-term memory retention by presenting vocabulary at strategically timed intervals. According to repeated exposure to vocabulary over time significantly improves retention and recall. This technique makes Memrise particularly effective for vocabulary acquisition, especially in early stages of language learning.¹⁵

¹² Agung Dwi Aprizal and Kelik Wachyudi, "The Effectiveness of Memrise as a Vocabulary Learning Tool," *Jurnal Ilmiah Wahana Pendidikan* 10, no. 4 (2024): 8–17.

¹³ Nurkhamimi Zainuddin et al., "Development of Arabic Language Lifelong Learning (A3L) Tutorial Platform Using WhatsApp Mobile Application," *Creative Education* 11, no. 04 (2020): 452–67, <https://doi.org/10.4236/ce.2020.114033>.

¹⁴ Helen Blom et al., "Comprehension and Navigation of Networked Hypertexts," *Journal of Computer Assisted Learning* 34, no. 3 (2018): 306–14, <https://doi.org/10.1111/jcal.12243>.

¹⁵ I. S. P. Nation, *Learning Vocabulary in Another Language*, 2nd ed., Cambridge Applied Linguistics (Cambridge: Cambridge University Press, 2013), <https://doi.org/10.1017/CBO9781139858656>.

Another advantage of Memrise is its engaging and gamified learning experience, which keeps learners motivated. The platform incorporates points, leaderboards, and daily goals to encourage consistent practice. Gamification elements in language learning apps can improve learner engagement and make the process more enjoyable, which is crucial in maintaining long-term interest and commitment. Motivation is particularly important for independent learners who may struggle to stay on track without teacher supervision.¹⁶

Another advantage of Memrise is its engaging and gamified learning experience, which keeps learners motivated. The platform incorporates points, leaderboards, and daily goals to encourage consistent practice. As emphasized by gamification elements in language learning apps can improve learner engagement and make the process more enjoyable, which is crucial in maintaining long-term interest and commitment.¹⁷ Motivation is particularly important for independent learners who may struggle to stay on track without teacher supervision.¹⁸ found that gamified language learning applications significantly enhanced user engagement and perseverance in vocabulary learning tasks, indicating the power of interactive digital environments in sustaining learner involvement.

Moreover, accessibility and flexibility are key benefits of Memrise. Learners can use the app anytime and anywhere, which supports self-paced learning and is ideal for learners with varying schedules or limited classroom exposure. Highlights that mobile learning platforms like Memrise offer valuable opportunities for informal learning beyond traditional classroom settings, allowing learners to reinforce their language skills regularly and conveniently.¹⁹

Lastly, Memrise's wide range of user-generated content provides learning resources in many languages and at different levels. This makes the platform adaptable to various educational contexts, including religious schools like madrasahs. However, while Memrise has been proven effective in English language learning, its application in Arabic instruction, particularly for developing speaking skills in madrasah contexts, remains under-researched, which opens up a promising area for further academic exploration.²⁰

¹⁶ Agung Dwi Aprizal and Kelik Wachyudi, "The Effectiveness of Memrise as a Vocabulary Learning Tool," *Jurnal Ilmiah Wahana Pendidikan* 10, no. 4 (January 13, 2024): 8–17, <https://doi.org/10.5281/zenodo.10499120>.

¹⁷ Iosr Journals, "A Mobile Gamification English Vocabulary Learning System for Motivating English Learning," 2020, <https://doi.org/10.9790/0050-07021429>.

¹⁸ Shawn Loewen, Daniel R. Isbell, and Zachary Sporn, "The Effectiveness of App-Based Language Instruction for Developing Receptive Linguistic Knowledge and Oral Communicative Ability," *Foreign Language Annals* 53, no. 2 (2020): 209–233, <https://doi.org/10.1111/flan.12454>.

¹⁹ Agnes Kukulska-Hulme and Lesley Shield, "An Overview of Mobile Assisted Language Learning: From Content Delivery to Supported Collaboration and Interaction," *ReCALL* 20, no. 3 (September 2008): 271–89, <https://doi.org/10.1017/S0958344008000335>.

²⁰ Bela Ayu Permatasari, Annisa Fauziah, and Afnal Lazuardi, "The Use of (Memrise) Application to Improve English Speaking Skills : A Systematic Literature Review Penggunaan Aplikasi (Memrise) untuk Meningkatkan Keterampilan Berbicara Bahasa Inggris : Tinjauan," *JICN* 2, no. 6 (2026): 11605–11622.

D. The Compatibility of Memrise with the Characteristics of Madrasah Students

Memrise aligns well with the characteristics of madrasah students, who often engage with traditional learning environments and religious values. The app's simple interface and structured learning paths make it accessible for students who may have limited prior exposure to digital tools. Furthermore, its focus on repetition and memorization resonates with the common methods used in religious education, such as rote learning (*ḥifẓ*). This makes Memrise a familiar yet modern extension of the learning style many madrasah students are accustomed to.²¹ According to recent studies, mobile learning tools that are user-friendly and adaptable to learners' existing habits and values can facilitate technology integration in conservative or traditional educational settings. In line with this, affirms that repetition-based mobile applications can effectively complement memorization practices found in religious schooling systems.²²

In addition, Memrise allows for self-paced and independent learning, which suits the diverse academic abilities and schedules of madrasah students. Since some madrasahs have limited technology resources or fixed class times, the mobile-based nature of Memrise enables students to continue learning outside of school hours.²³ According to Burston, mobile-assisted learning platforms provide valuable flexibility and access to educational content, especially for learners in under-resourced settings. Similarly, emphasize that mobile technologies support personalized learning and empower learners by offering control over the pace, time, and place of study.²⁴ This feature empowers students to take ownership of their language learning progress and adapt it to their daily routines and religious obligations.

Moreover, the multimedia content and native speaker audio in Memrise help develop Arabic pronunciation and speaking fluency—skills that are often overlooked in traditional madrasah classrooms. This aligns with the growing need to modernize Arabic instruction to include communicative competence, not just grammatical knowledge. While studies such as highlight Memrise's success in improving vocabulary, its potential for supporting speaking skill development in Islamic school contexts remains a promising area for further investigation.²⁵ In line with this, conducted a meta-analysis showing that mobile-assisted language learning (MALL) positively influences second language speaking performance, especially when multimedia and authentic materials are integrated effectively.²⁶ This

²¹ Mohamed Ally, *Mobile Learning: Transforming the Delivery of Education and Training*, Issues in Distance Education (Erscheinungsort nicht ermittelbar: Athabasca University Press, 2009).

²² Jack Burston, "Twenty Years of MALL Project Implementation: A Meta-Analysis of Learning Outcomes," *ReCALL* 27, no. 1 (January 2015): 4–20, <https://doi.org/10.1017/S0958344014000159>.

²³ Burston.

²⁴ Agnes Kukulska-Hulme and Lesley Shield, "An Overview of Mobile Assisted Language Learning: From Content Delivery to Supported Collaboration and Interaction," *ReCALL* 20, no. 3 (September 2008): 271–89, <https://doi.org/10.1017/S0958344008000335>.

²⁵ Khumairo Qurrotu'Ain, "English Education Department Faculty of Tarbiyah and Teacher Training Universitas Islam Negeri Maulana Malik Ibrahim Malang," 2025.

²⁶ Helen Blom et al., "Comprehension and Navigation of Networked Hypertexts," *Journal of Computer Assisted Learning* 34, no. 3 (2018): 306–14, <https://doi.org/10.1111/jcal.12243>.

supports the claim that platforms like Memrise can bridge traditional and communicative methods of Arabic instruction in madrasahs.

In religious educational settings like madrasahs, where learning is often centered around discipline, repetition, and text memorization, Memrise offers a digital platform that supports these pedagogical methods while integrating modern technology.²⁷ The platform's use of spaced repetition aligns with the traditional Islamic educational principle of regular revision (*murāja'ah*), reinforcing language retention in a way that is both effective and familiar to students. This compatibility supports a smoother transition from conventional to digital learning approaches within the madrasah context. Another notable aspect is the moral and ethical framework embedded in madrasah education. Teachers in these institutions often seek educational tools that do not conflict with religious values. Memrise, being content-adaptable and culturally neutral, allows educators to curate or create vocabulary sets that are aligned with Islamic values and content. This ensures that language instruction remains relevant to students' religious identity and worldviews while promoting linguistic development. According to such adaptability is essential for the meaningful integration of mobile tools into diverse learning environments.²⁸

Finally, the collaborative features of Memrise, including class-based leaderboards and competitive learning formats, can foster a sense of community and motivation among madrasah learners. Group learning and collective achievement are important values in Islamic education, and Memrise's gamified system may encourage healthy peer interaction and a shared enthusiasm for learning. This supports the cultivation of both academic discipline and social bonding, reinforcing the holistic goals of Islamic education as described in his vision of integrated knowledge and character formation.²⁹ According to gamification strategies enhance social dynamics in digital learning environments, fostering motivation through competition and collaboration.³⁰ Furthermore, found that social features in gamified learning apps significantly influence learner engagement, especially in collective or value-based learning communities.³¹

²⁷ Maqsurur Rahman and Md. Shahjahan, "Exploring the Taxonomy of Survey Papers on Large Language Models Using Classical Machine Learning," *Journal of Intelligent Learning Systems and Applications* 17, no. 02 (2025): 68–76, <https://doi.org/10.4236/jilsa.2025.172006>.

²⁸ John Traxler, "Learning in a Mobile Age," *International Journal of Mobile and Blended Learning (IJMBL)* 1, no. 1 (2009): 1–12, <https://doi.org/10.4018/jmb.2009010101>.

²⁹ Muhammad Naguib Al-Attas, *The Concept of Education in Islam: A Framework for an Islamic Philosophy of Education* (International Institute of Islamic Thought and Civilization, International Islamic University, 1991).

³⁰ Sebastian Deterding et al., "From Game Design Elements to Gamefulness: Defining 'Gamification,'" in *Proceedings of the 15th International Academic MindTrek Conference: Envisioning Future Media Environments*, MindTrek '11 (New York, NY, USA: Association for Computing Machinery, 2011), 9–15, <https://doi.org/10.1145/2181037.2181040>.

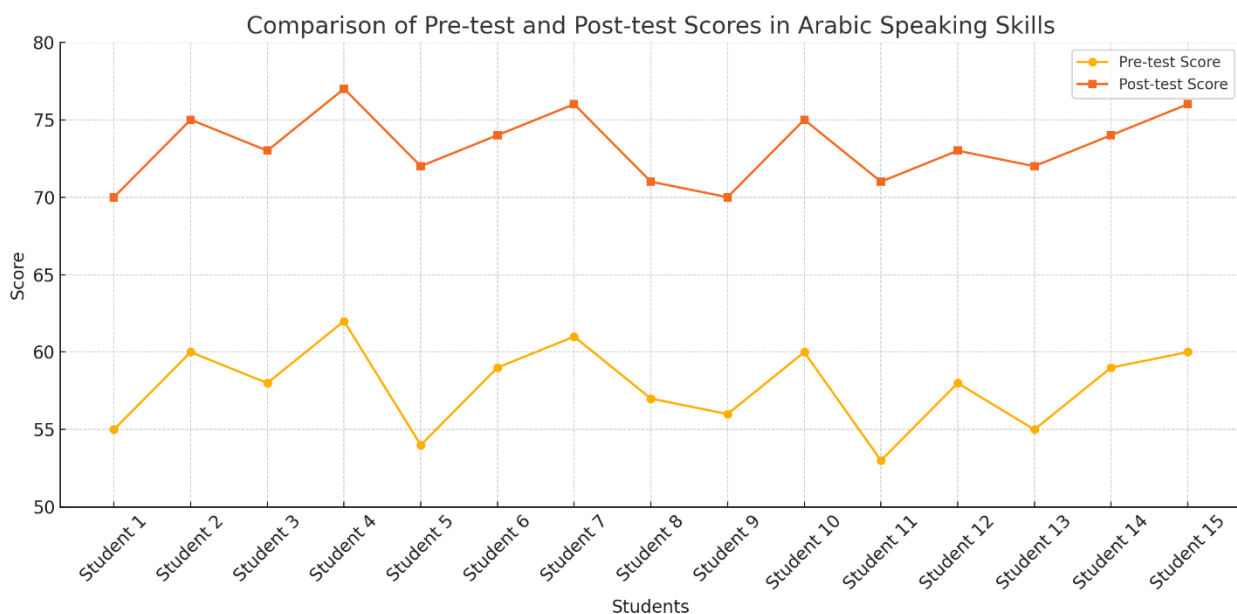
³¹ Ilona Nawrot and Antoine Doucet, "Building Engagement for MOOC Students: Introducing Support for Time Management on Online Learning Platforms," in *Proceedings of the 23rd International Conference on World Wide Web, WWW '14 Companion* (New York, NY, USA: Association for Computing Machinery, 2014), 1077–82, <https://doi.org/10.1145/2567948.2580054>.

E. Speaking Skills Pre-test and Post-test Results

The quantitative results from the pre-test and post-test scores of 15 students at Madrasah Tsanawiyah Miftahul Ulum Surabaya reveal a clear and positive trend in speaking proficiency. Initially, student scores mostly ranged from 53 to 62, indicating a basic or "low-average" speaking ability prior to the intervention. Following the implementation of Memrise-based learning, post-test scores increased significantly, ranging from 70 to 77. A paired samples t-test was conducted to verify the statistical significance of these gains. The analysis showed a mean difference of -15.47 between the pre-test and post-test scores, with a standard deviation of 1.25. The t-value of -48.078 and a p-value (Sig. 2-tailed) of .000 ($p < 0.05$) indicate that the improvement was not due to chance but was a direct result of the intervention. These findings demonstrate that Memrise provides an inclusive learning environment where both high-achieving and lower-ability students can experience measurable growth.

Sub-chapter Conclusion: The statistical data conclusively proves that the structured use of Memrise significantly enhances Arabic oral proficiency by providing consistent, data-driven feedback and repetitive practice that builds linguistic muscle memory. Here is the pre-test and post-test result of Arabic speaking skills from 15 students of Madrasah Tsanawiyah Miftahul Ulum Surabaya who participated in the learning process using the Memrise application.

Figure 1. Comparison of Pre-test and Post-test Scores in Arabic Speaking Skills



The line graph above illustrates the comparison of Arabic speaking skill scores from the pre-test and post-test of 15 students at Madrasah Tsanawiyah Miftahul Ulum. Each student demonstrated improvement, with post-test scores consistently higher than pre-test scores. This visual representation confirms a positive trend in speaking proficiency following the use of the Memrise application in their learning process.

The pre-test scores (shown in yellow) mostly range from 53 to 62, indicating a basic speaking ability before using Memrise. In contrast, the post-test scores (shown in orange) range from 70 to 77, reflecting a clear improvement across nearly all participants. The significant gap between the yellow and orange lines for each student emphasizes the positive impact of Memrise, particularly in enhancing vocabulary and pronunciation through native speaker audio.

This graph provides strong visual support for the statistical findings, which show a significant improvement in Arabic speaking skills following the intervention. It also highlights that the benefits of Memrise were felt evenly, not only by high-achieving students but also by those with lower to average abilities. Thus, Memrise proves to be an inclusive and effective learning tool for enhancing speaking skills in the madrasah context.

Table 1. Results of the Paired Sample T-Test

	Paired Samples Test							
	Paired Differences							
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference		t	df	Sig. (2-tailed)
			Lower	Upper				
Pair 1 Sebelum menggunakan memrise - Setelah menggunakan memrise	-15.4666	1.24595	.32170	-16.15665	-14.77668	-48.078	14	.000

The results presented in Table 1 show the outcome of a paired samples t-test conducted to compare students' speaking skills before and after using the Memrise application. The mean difference between the pre-test and post-test scores is -15.47, with a standard deviation of 1.25 and a standard error of 0.32. The negative mean value indicates a consistent improvement, as post-test scores are significantly higher than pre-test scores.

The 95% confidence interval for the difference ranges from -16.16 to -14.78, meaning we can be 95% confident that the true average improvement lies within this range. The t-value of -48.078 with 14 degrees of freedom (df) further supports the conclusion that the difference is not due to chance.

The p-value (Sig. 2-tailed) is .000, which is far below the significance level of 0.05. This means the improvement in Arabic speaking skills after using Memrise is statistically significant. Thus, it can be concluded that the Memrise application had a substantial and measurable impact on enhancing students' Arabic speaking proficiency at Madrasah Tsanawiyah Miftahul Ulum.

Beyond mere numbers, the qualitative data collected through observations and interviews indicates a profound shift in student engagement. Before the study, students often found Arabic lessons monotonous and disconnected from their daily lives. The introduction of Memrise sparked a heightened interest in the subject, particularly in active speaking practice. The most notable psychological change was the increase in learner confidence. By practicing in a low-stakes digital environment, students felt less anxious about making mistakes compared to speaking in front of a physical classroom. Furthermore, the mobile nature of the app encouraged learning autonomy; students began to take initiative, reviewing materials outside of formal class hours and managing their own study pace. This shift from passive reception to active exploration is a critical asset for long-term language acquisition.

In addition to showing statistical significance, the results of the test also indicate that all study participants experienced an increase in scores after using Memrise. This demonstrates that the application has a consistent effectiveness, benefiting not only students with high initial proficiency but also those who previously had lower speaking skills. This aligns with the nature of Memrise, which emphasizes self-paced, repetitive, and multimedia-based learning—proven to enhance student engagement and memory retention.³²

Furthermore, this improvement can be attributed to key features of Memrise such as spaced repetition and native speaker audio, which specifically support phonetic skills and pronunciation. In the context of madrasahs, which traditionally emphasize memorization and repetition, this approach is highly compatible and can optimize Arabic speaking instruction.³³ These findings reinforce the relevance of integrating technology into language education in Islamic schools while also opening up opportunities for more contextual and interactive Arabic language teaching methods.

F. The change in students' attitudes toward spoken Arabic learning after using the Memrise application

After participating in instruction using the Memrise app, many students showed a heightened interest in Arabic lessons, particularly in speaking skills (maharah kalām). Previously, some students found the lessons monotonous and difficult, often focused on rote memorization or dialogues disconnected from daily life. However, the interactive features in Memrise—such as native speaker audio and game-based challenges—sparked greater enthusiasm for active speaking practice.

One of the most noticeable changes was the increase in students' confidence in speaking Arabic. Through self-guided practice and spaced repetition, students felt more prepared and less anxious when speaking in front of their peers or teachers. The ability to repeat pronunciation exercises anytime helped them gradually improve their articulation and intonation, leading to significant gains in oral communication skills.

³² Inci Demir, "App-Solutely Motivated! EFL Vocabulary Learning in the Digital Age: 'Memrise' and Learner Motivation through the Lens of SLA Theories," *Journal of Theoretical Educational Sciences* 18, no. 4 (2025): 712–735.

³³ Nazahah Ulin Nuha, "Implementasi Pendekatan Kontekstual Dalam Keterampilan Berbicara Bahasa Arab," *Arabic Language in Focus* 1, no. 2 (2023): 83–91.

Students also displayed more autonomy in managing their study time and methods. Because Memrise can be accessed flexibly outside of class hours, students felt they had greater control over their learning process. This led to a more active learning model, where students were not just waiting for teacher instruction but also took initiative to review material on their own. Such independence is a key asset in long-term learning development.

Before the study, some students in the madrasah were hesitant to use technology for learning Arabic. However, after using Memrise, their attitudes toward digital tools became more positive. They began to realize that technology can be a helpful and enjoyable learning aid, not just a source of entertainment. This shift also opens opportunities for teachers to creatively integrate more tech-based instructional methods in the future.

In addition to individual development, students showed greater collaborative spirit. The leaderboard feature in Memrise encouraged healthy competition and motivated students to cheer each other on to achieve higher scores. This created a dynamic and competitive yet supportive learning environment. Such changes in attitude reflect the values of teamwork and *ukhuwah* (brotherhood), which align with the holistic goals of Islamic education in madrasahs.

G. The Effectiveness of Memrise Features in Practice: Gamification, Repetition, Audio

Memrise is a digital language learning platform designed to enhance vocabulary and speaking proficiency through innovative and interactive features. Three of its most notable features are gamification, spaced repetition, and native speaker audio. These tools work together to create a learning environment that is both engaging and pedagogically effective, particularly in promoting speaking skills in foreign language acquisition, including Arabic.³⁴

The success of Memrise in this context can be attributed to three specific pedagogical pillars: gamification, spaced repetition, and authentic audio support. The gamification elements including points, levels, and leaderboards introduced a healthy competitive spirit that aligns with the social values of *ukhuwah* (brotherhood) in the madrasah.³⁵ Moreover, the spaced repetition system (SRS) optimizes memory retention by presenting vocabulary at strategically timed intervals just before it is likely to be forgotten. This is complemented by native speaker audio, which allows students to model their pronunciation and intonation accurately.³⁶ For madrasah students who are often already accustomed to rote learning (*hifz*), these digital features provide a more modern and effective version of their traditional study habits.

³⁴ Fadilah and Tatang, "Pemanfaatan Aplikasi Memrise Dalam Pembelajaran Bahasa Arab : Strategi Efektif Untuk Meningkatkan Kosakata Dan Penguasaan Bahasa."

³⁵ Shila Sandrina Wulandari, Oktavia Widiastuti, and Ayu Liskinasih, "The Indonesian EFL Students' Memrise: Exploring Mobile Learning Games to Improve Academic Speaking Skills," *Journal of English for Academic and Specific Purposes* 8, no. 1 (2025): 49–64.

³⁶ Laily Maghfiratun Nafi'ah and Muallim Wijaya, "Implementation of Spaced Repetition Technique Using Flashcards to Improve Arabic Vocabulary Retention," *STUDI ARAB* 16, no. 1 (2025): 51–64.

Gamification elements in Memrise such as earning points, completing levels, and leaderboard rankings—play a crucial role in sustaining student motivation. These elements introduce a sense of achievement and competition, making the learning process enjoyable and less intimidating. Godwin-Jones explains that many mobile language learning applications incorporate gamification features such as points, badges, levels, and daily streaks to enhance learner motivation and engagement. These elements are designed to encourage sustained participation and self-directed learning, particularly among younger learners who are accustomed to digital environments and autonomous study practices.³⁷

Another core feature of Memrise is its use of spaced repetition, a scientifically proven method for enhancing long-term memory retention. This approach helps learners review vocabulary at strategic intervals just before they are likely to forget it, making memorization more efficient. According to Burston (2015), such technology-assisted repetition supports deeper cognitive processing and better language retention compared to traditional rote learning.³⁸ Memrise includes audio recordings by native speakers, enabling learners to model their pronunciation and intonation authentically. This is especially beneficial in learning Arabic, where phonetic nuances and proper articulation are critical. Listening and mimicking native pronunciation can significantly improve students' speaking fluency and confidence, bridging the gap between passive vocabulary knowledge and active oral communication.³⁹

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The combination of gamification, repetition, and native audio supports a holistic learning process. As students progress through levels, revisit vocabulary through spaced intervals, and hear authentic speech patterns, they are better prepared to use the language in real conversations. Zhang & Wu (2018) emphasize that mobile-assisted tools that integrate such features have a measurable positive effect on learners' speaking performance.⁴¹

³⁷ Robert Godwin-jones, "EMERGING TECHNOLOGIES MOBILE APPS FOR LANGUAGE LEARNING," *Language Learning & Technology* 15, no. 2 (2011): 2–11.

³⁸ Agung Dwi Aprizal, "The Effectiveness Of Memrise As A Vocabulary Learning Tool: A Literature Review," *Jurnal Ilmiah Wahana Pendidikan* 10, no. 4 (2024): 8–17.

³⁹ Hanny Khairunisa Qatrunada, Maman Abdurrahman, and Nalahuddin Saleh, "Analisis Penggunaan Memrise Sebagai Media Pembelajaran Kosakata Bahasa Arab Melalui Pendekatan Andragogi," *Jurnal Pendidikan Dan Pembelajaran* 4, no. 3 (2025): 605–11, <https://doi.org/10.54259/diajar.v4i3.5383>.

⁴⁰ Qatrunada, Abdurrahman, and Saleh.

⁴¹ Muhammad Aslam Sipra and Waqar Ahmad, "Impact of Mobile Assisted Language Learning (MALL) on EFL : A Meta-Analysis," *Advances in Language and Literary Studies* 7, no. 2 (2016): 76–83, <https://doi.org/10.7575/aiac.all.v.7n.2p.76>.

These features are particularly effective for madrasah students who may be more accustomed to traditional, text-heavy learning methods. The audio feature complements the oral traditions in Islamic education, while gamification makes learning more interactive and student-centered. The spaced repetition system also aligns with the Islamic principle of frequent revision (*murāja'ah*), making the app compatible with both pedagogical and cultural expectations.⁴²

In conclusion, the practical features of Memrise—when used consistently—can significantly contribute to the development of Arabic speaking skills. These tools not only enhance learner engagement but also support language retention and oral proficiency. Their relevance in the context of Islamic education provides new opportunities for modernizing Arabic language instruction without compromising traditional values. Further implementation in madrasahs can potentially elevate the effectiveness of Arabic speaking courses in similar settings.

H. Comparison of Results with Previous Studies

The findings of this study align with previous research that highlights the positive impact of digital learning platforms on language acquisition. A study published in the *Journal of English Language and Literature* at Universitas Majalengka found that the use of Memrise had a significant positive effect on students' English vocabulary mastery, as shown by improved post-test scores after the implementation of the application. This finding supports the idea that Memrise's spaced repetition system and multimedia features contribute to better memorization and long-term retention, which is also relevant to improving Arabic vocabulary acquisition in this study.⁴³

Moreover, the improvement in students' speaking confidence in this study aligns with Miftahul (2025), who found that interactive digital environments provide a supportive space for speaking practice. Since speaking is often the most anxiety-inducing language skill, such platforms help reduce fear through consistent, engaging, and collaborative activities. Similarly, students in our study showed greater enthusiasm and willingness to speak Arabic after using Memrise, suggesting that its interactive and gamified features create a less intimidating learning environment.⁴⁴

In contrast to traditional methods that heavily rely on repetition and memorization without context, the findings of this study suggest that integrating technology into the classroom offers contextual learning opportunities. This finding aligns with Dewi and Wilany (2022), who reported that technology-enhanced language learning reduces students' speaking anxiety compared to traditional

⁴² Wulandari, Widiastuti, and Liskinasih, "The Indonesian EFL Students' Memrise: Exploring Mobile Learning Games to Improve Academic Speaking Skills."

⁴³ Robi Faizal Rohim and Rizki Elang Gumelar, "The Effect of Memrise Application Towards Students' Vocabulary Mastery," *Journal of English Language Learning* 6, no. 2 (2022): 194–98.

⁴⁴ Miftahul Jannah and Dhea Nuraisyah, "Innovative Teaching with TELL: Enhancing Speaking Skills through Digital Applications," *Journal Innovation in Education* 3, no. 1 (2025): 138–46.

methods. By creating a more supportive learning environment, digital platforms like Memrise may help learners feel more confident, which can contribute to improved speaking fluency.⁴⁵

This study differs from Wulandari (2025) who found that Memrise supports vocabulary and pronunciation but has limited impact on speaking without sufficient interaction and feedback. In contrast, the present study provided structured teacher guidance during its use, which likely enhanced speaking outcomes. This highlights the crucial role of teacher facilitation in optimizing educational technology.⁴⁶

Another key difference from previous studies lies in the language focus. While most prior research explored Memrise in the context of English learning, this study contributes new insights into its application for Arabic language acquisition. The distinct linguistic features of Arabic, such as root patterns and pronunciation challenges, did not hinder the effectiveness of Memrise as a learning aid, indicating its flexibility across languages.⁴⁷

Furthermore, the current findings also add to the literature by emphasizing the motivational aspect of digital learning. According to Sailer et al. (2017), learners demonstrate higher engagement when educational tools effectively integrate game design elements such as rewards, levels, and immediate feedback. This study confirms that increased student motivation subsequently enhances the frequency of speaking practice, a correlation that aligns with the psychological need satisfaction identified in Sailer's research.⁴⁸

In summary, this study confirms many of the positive effects previously reported in the literature regarding digital learning tools, while also extending the findings to a new linguistic and cultural context. It highlights the importance of combining technological tools with teacher support and suggests further exploration into how applications like Memrise can be customized to suit the needs of diverse language learners.

I. Conclusion

In conclusion, this research demonstrates that the integration of Memrise within an Indonesian madrasah significantly elevates students' Arabic speaking performance across all measured metrics. The intervention successfully transformed students from hesitant learners into confident communicators by leveraging the power of gamification, native audio, and scientifically backed memory techniques. The final analysis suggests that the effectiveness of such technology is contingent upon its alignment with

⁴⁵ Desi Surlitasari Dewi, "The Effect Of Technology-Enhanced Language Learning on Speaking Anxiety," *Indonesian Journal of Cyber Education* 2, no. 1 (2023): 25–35.

⁴⁶ Wulandari, Widiastuti, and Liskinasih, "The Indonesian EFL Students' Memrise: Exploring Mobile Learning Games to Improve Academic Speaking Skills."

⁴⁷ Qatrunada, Abdurrahman, and Saleh, "Analisis Penggunaan Memrise Sebagai Media Pembelajaran Kosakata Bahasa Arab Melalui Pendekatan Andragogi."

⁴⁸ Michael Sailer et al., "How Gamification Motivates: An Experimental Study of the Effects of Specific Game Design Elements on Psychological Need Satisfaction," *Computers in Human Behavior* 69 (2017): 371–80, <https://doi.org/10.1016/j.chb.2016.12.033>.

the learners' existing habits. In the case of madrasah students, the app's focus on repetition and auditory modeling perfectly complemented their traditional academic background. Moving forward, educators should look beyond the "distraction" of technology and embrace it as a means to foster both academic discipline and communicative competence. This study serves as a foundational reference for the broader implementation of digital tools in religious education, proving that when guided by a teacher, technology can revitalize the teaching of sacred languages for the digital generation. The findings of this study indicate that the use of Memrise has a significant positive impact on students' Arabic speaking skills. Quantitative data from the pre-test and post-test show measurable improvements in pronunciation, vocabulary usage, and overall speaking fluency. Qualitative observations further reveal a noticeable shift in students' attitudes toward spoken Arabic; they became more motivated, engaged, and confident in using the language. This transformation is attributed to the platform's integration of gamification, repetition, and audio features, which made the learning process more interactive and enjoyable. Moreover, the effectiveness of Memrise is strongly supported by its alignment with the learning preferences of madrasah students, who benefit from visual, auditory, and repetitive learning styles. These results are consistent with previous studies on digital language learning tools, while also contributing new insights into Arabic language education. The study confirms that when combined with appropriate teacher guidance, digital tools like Memrise can serve as effective and motivating alternatives to traditional language instruction, particularly in enhancing oral communication skills.

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