thariqah ilmiah
JURNAL ILMU-ILMU KEPENDIDIKAN DAN BAHASA ARAB
IMLA
Vol. 13. No. 1. 30 Juni 2025
ISSN Print: 2355-8717 ISSN Online: 2721-8406 Sinta 3
Doi: https://doi.org/10.24952/thariqahilmiah.v13i1.15843

THE USE OF THE "ARAB BETA" APPLICATION IN LEARNING *AL-ASHWAT AL-'ARABIYYAH* FOR GRADE VII STUDENTS OF MTS DARUL MUSTHOFA, SELUMA

[1*]Abdullah Haryono, [2]Asep Sopian
[1,2]Universitas Pendidikan Indonesia
E-mail: [1*]abdullahrahamli@gmail.com, [2]asepsopian@upi.edu

Abstract

This study aims to develop the ARAB BETA learning application as an interactive medium to enhance students' pronunciation skills in *al-ashwat al-'Arabiyyah* (Arabic phonetics). The background of this research is based on the limitations of existing learning applications such as Duolingo and Kahoot, which do not offer specific features for intensive practice in the pronunciation of Arabic letters. The method used is Research and Development (R&D) referring to the Borg and Gall development model. The research subjects were seventh-grade students at MTs Darul Musthofa Seluma during the second semester of the 2024/2025 academic year. Data collection techniques involved validation tests conducted by subject matter experts, media experts, and language experts, as well as limited trials involving students. The research findings indicate that the ARAB BETA application is feasible for use as an interactive learning medium in ilmu ashwat, with an average validation score categorized as "highly valid." The implication of this development is the availability of an Android-based digital learning medium that facilitates systematic and engaging instruction in *al-ashwat al-'arabiyyah*

Keywords: Arab beta; R&D; Al-ashwat al-arabiyyah

تجريد

الأهداف من هذا البحث هي تطوير تطبيق التعلم ARAB BETA وسيلة تفاعلية لتحسين مهارات النطق لدى التلميذ في الأصوات العربية. الخلفية لهذا البحث هي محدودية تطبيقات التعلم الحالية مثل Duolingo وKahoot، التي لا تقدم ميزات محددة للممارسة المكثفة لنطق الحروف العربية. الطريقة المستخدمة هي البحث والتطوير (R&D) بالإشارة إلى نموذج بورغ وغال للتطوير. الموضوع لهذا البحث هو تلميذ الصف السابع في الفصل الدراسي الثاني من العام الدراسي ٢٠٢٤/٢٠٢٥. المدرسة الثناوية الأهلية دار المصطفى سيلومى تضمنت تقنيات جمع البيانات اختبارات التحقق التي أجراها خبراء الموضوع وخبراء الوسائط وخبراء اللغة، بالإضافة إلى تجارب محدودة شارك فيها التلميذ. النتائج من هذا البحث هي أن تطبيق ARAB BETAممكن الاستخدام كوسيلة تعليمية تفاعلية في علم الأصوات، بمتوسط درجة تحقق مصنف على أنه "صالح للغاية". إن الآثار المترتبة على هذا التطوير هي توافر وسيلة تعليمية رقمية قائمة على نظام أندرويد تسهل تعليم الأصوات العربية بشكل منهجي وجذاب

الكلمة المفتوحة: العربية بيتا؛ البحث وتطويره؛ الأصوات العربية

Submited: 2025-05-31	Revised: 2025-06-02	Accepted: 2025-07-02

INTRODUCTION

The sound of language, or al-ashwat, is an important element in Arabic language learning. Besides al-ashwat, Arabic also consists of other elements such as qawaid (nahwu and shorof) and mufrodat. Sound is the manifestation of language created by humans to interact with others.[1] This aligns with Imam Suyuti's statement that, in essence, language is a series of sounds used by humans to express intended meanings and purposes.[2]

As a part of Arabic language elements, al-ashwat has several important studies, namely phonetics and phonology.[3] Phonetics discusses makhraj (articulation points), sound qualities, vowels, and consonants. Meanwhile, phonology covers stress (nabr), intonation (tanghim), waqaf (pausing), and lengthening/shortening of sounds.[4] Therefore, both phonetics and phonology play essential roles in Arabic language learning. This is supported by several literatures stating that learning and studying al-ashwat must be prioritized before studying other language elements and skills.[5]

Learning al-ashwat can begin at the basic level, that is, for children aged 6–12 years. According to child psychology, children at this age are still influenced by their mother tongue. Thus, learning al-ashwat, such as how to pronounce Arabic sounds correctly, should be emphasized. The aim of al-ashwat learning is to enable Arabic learners to pronounce Arabic letters properly and correctly.[6] With this goal, it is expected that children will have a strong foundation in pronouncing Arabic letters. Therefore, learning the pronunciation of Arabic letters can be integrated with reading the Qur'an, which begins with introducing the hijaiyyah letters.[7] Introducing the hijaiyyah letters usually starts with the Iqra' books consisting of six volumes. Through the Iqra' books, children are taught to articulate Arabic letters correctly according to the applied rules.

Along with the times, learning al-ashwat is no longer limited to using Iqra' books or similar books, although such books remain important. Experts in Arabic language learning have developed various innovations using artificial intelligence (AI). Learning Arabic, especially al-ashwat, with AI has proven effective. As revealed by Robiah's

---

[1] Ni'mah K, Anisa'atus Salamiyah., *Ilmu Ashwat dalam Pembelajaran Bahasa Arab.* HUMANIS: Jurnal Ilmu-ilmu Sosial dan Humaniora, Volume 16, 2004.

[2] M. Nur Sholihin, (2020)., *Peran Ilmu Ashwat dalam Pelafalan Huruf Hijaiyyah (KajianTeoritik Linguistik Terapan)*. SALIHA: Jurnal Pendidikan & Agama Islam, Volume 3, Nomor 2. hlm. 110-127

[3] Ahmad Sayuti Anshari Nasution, (2018)., *Bunyi Bahasa*. Amzah, hlm. 114

[4] M. Nashiruddin, Himmatul Azizah., (2018)., *Pembelajaran Mufrodat Pendekatan Ashwat Panjang Pendek*. International Conference of Students on Arabic Language.

[5] Mufidah, N. (2018). *Metode Pembelajaran Al-Ashwat*. al Mahāra: Jurnal Pendidikan Bahasa Arab, 4(2), 199–218.https://doi.org/10.14421/almahara.2018.042-03

[6] Salma, dkk., (2024)., Needs Analysis of Development Ilmu Ashwat to Improve Speaking Skills Using Thunkable Applications/ تحليل احتياجات تطوير علم الأصوات العربية لتحسين مهارة الكلام باستخدام برمجة Thunkable

[7] Puspita, S., & Yuliani, N., (2021)., *Integrasi Pembelajaran Pelafalan Huruf Hijaiyyah dalam Membaca Al-Qur'an*.

Submited: 2025-05-31	Revised: 2025-06-02	Accepted: 2025-07-02

research, the presence of AI in al-ashwat learning brings many positive effects such as increased motivation, better focus, and engagement of multiple senses (Fauziah, 2018).[8] In line with this, Noza et al. have applied Kahoot in learning Arabic language elements and found advantages including minimizing cheating and facilitating teachers in grading (Aflisia et al., 2020). AI's benefits in al-ashwat learning also attract children and help overcome Qur'anic illiteracy in Indonesia, which is a positive impact of learning applications.

Numerous studies and developments of AI-based Arabic learning media show great attention from experts towards the continuity of Arabic language education in Indonesia. Therefore, the author is interested in studying the utilization of the ARAB BETA application in learning al-ashwat al-'arabiyyah for children. ARAB BETA is chosen because it is an Android-based application developed specifically for Arabic learning, especially at the ashwat level. The researcher focuses on al-ashwat al-'arabiyyah learning for children because al-ashwat is a fundamental element in Arabic language learning that can serve as a guide for learners to develop their competencies.

Several previous studies include: (1) "Implementation of the Arabic Language Learning Model (Project-Based Learning – PJBL) to Improve Students' Skills in the Ashwat Subject at the Arabic Education Study Program FKIP, University of Jambi," which used a qualitative PJBL approach with test results scoring 72.71, post-test 1 at 71, and post-test 2 at 80. (2) "Use of the Awlad School Application in Learning *al-ashwat 'al-'arabiyyah* for Children," using R&D aimed at developing the use of the Awlad School app for learning al-ashwat al-'arabiyyah. Data were collected through interviews, tests, post-tests, observations, and others. The results showed that the application's use needs optimization by developing interactive features, speech validation, and feedback to allow users to use these features properly, with teachers playing an important role. (3) "Learning *al-ashwat 'al-'arabiyyah* with the PAIKEM Model Application: An Ethnography Study at STAI Darul Qur'an Payakumbuh," which used R&D and analyzed factual data described in words and sentences. This application is designed with a conceptual learning model emphasizing activeness, innovation, creativity, effectiveness, and a pleasant learning atmosphere. However, its implementation in Arabic phonology learning requires further exploration due to the need for improvements in technological access and interactive learning resources. (4) "ArPA: A Novel Speech Analysis and Correction Tool for Arabic-Speaking Children" this research introdeuces a new application named ArPA for Arabic kids who have trouble tih pronounciation. Our work uses a novel technique for speech recognition using Melspectrogram and MFCC images. The results show that the ResNet18 classifier on speech-to-image converted data effectively identifies mispro-nounciations in Arabic speech with an accuracy of 99.015%

[8] Robi'ah Nilla Fauziah., (2018)., *Ta'lim al-Ashwat lil Athfal 'abri Android (Dirosah Tajriibiyyah 'Ashwat al-Huruf al-Hijaiyyah fii Madrosah Ta'lim al-Qur'an bi Masjid Raya Bintaro Jaya*.

Submited: 2025-05-31	Revised: 2025-06-02	Accepted: 2025-07-02

with Mel-Spectrogram images outperforming ResNet18 with MFCC images.[9] (5) "AI-based Arabic Language and Speech Tour" This paper also presents an initial experimental evaluation of AI-ALST, which is based on MFCC (Mel Frequency Cepstrum Coefficient) feature extraction, bidirectional LSTM (Long Short-Term Memory), an attention mechanism, and a cost-based strategy to address class imbalance issues in learning. The experimental results show that AI-ALST can effectively and successfully detect pronunciation errors, and its performance can be evaluated using F1-score, accuracy, precision, and recall metrics.[10]

According to Tanduklangi and Amri, the feedback from speech recognition applications is still very limited, the language usage still feels rigid, and many errors occur.[11] This opinion is further supported by Ronny et al., in the context of adopting artificial intelligence, particularly in applications such as Kahoot, Duolingo, and other learning platforms. It is important to build transparency and trust in these technologies. Users and the public need to feel that the artificial intelligence systems are functioning properly, fairly, and reliably.[12] Therefore, ARAB BETA aims to develop a Speech Recognition feature that can be accessed without an internet connection. According to Munir, in his book *Multimedia: Concepts and Applications in Education*, educational applications can be designed to function offline by utilizing interactive multimedia such as text, images, audio, and video. Offline applications do not require an internet connection because all learning materials are already embedded within the application itself.[13] This was also stated by Raudatul et al., who noted that one of the limitations of Arabic language learning applications is the lack of offline features in many of them, making a stable internet connection necessary.[14]

The integration of speech recognition in the ARAB BETA application utilizes the eSpeak NG tool, which is based on the local curriculum and includes features such as Text-to-Speech and an offline Hijaiyah learning concept. This tool does not require an internet connection, making it suitable for educational applications in areas with limited network access, such as Islamic boarding schools (pesantren), schools, or other remote locations.[15]

---

[9] Lamia Berriche, Maha Driss, Areej Ahmed Almuntashari, Asma Mufreh Lghabi, Heba Saleh Almudhi, Munerah Abdul-Aziz Almansour, *ArPA: A Novel Speech Analiysis and Correction Tool for Arabic-Speaking Children.* CS Department, CCIS, Prince Sultan University, Riyadh 12345, Saudi Arabia.

[10] Sicong Shao Saleem Alhariri, Alim Hariri, dkk., *AI-Based Arabic Language and Speech Tutor*. University of Arizona.

[11] Amri Tanduklangi, Carlina Amri., (2019)., *Manajemen Sumber Daya Pembelajaran Bahasa Berbantuan Komputer CALL (Computer Assisted Language Learning)*. Deepublish, hlm. 65.

[12] Ronny Sandra Yofa Zebua, *Fenomena Artificial Intelligence*, PT. Sonpedia Publishing Indonesia, hlm. 38.

[13] Munir, (2012)., *Multimedia Konsep & Aplikasi dalam Pendidikan*. Alfabeta CV, hlm. 44.

[14] Raudatul Firdausinnisa, Julkarnain, Abdul Azis., (2024)., *Jenis Media Pembelajaran Bahasa Arab*. Al-Afkar, hlm. 9.

[15] Abdal-Hamid, M., & Elmahdy, M. (2015). *Developing Offline Text-to-Speech Systems for Language Learning*. International Journal of Computer Applications, 121(20), 12-18.

Submited: 2025-05-31	Revised: 2025-06-02	Accepted: 2025-07-02

Based on this, the use of applications in learning *al-ashwat 'al-'arabiyyah* still needs development, especially in speech validation. The urgency of learning *al-ashwat 'al-'arabiyyah* is very important because it is a fundamental element in every language. If al-'ashwat is not well understood, it cannot be mastered perfectly. Often, misunderstandings occur in the language process, hindering communication.[16]

Given al-ashwat's crucial role in language learning and communication, it deserves more attention in Arabic language education at all educational levels. However, in Indonesia, Arabic teaching rarely includes app-based *al-ashwat 'al-'arabiyyah* learning; if available, it usually only introduces hijaiyyah letters without evaluation or pronunciation practice.[17]

Therefore, the researcher intends to develop the ARAB BETA application to address shortcomings found in previous studies. In this ARAB BETA application, audiolingual exercises are repeated so students can memorize using the Mim-Mem (Mimicry-Memorization Method) and Audiolingual (Sam'iyyah Syafahiyyah) methods.[18]

RESEARCH METHODS

This study employed the Research and Development (R&D) method, referring to a simplified version of the Borg and Gall development model. The main objective of the research was to develop the **ARAB BETA** application as an interactive learning medium to enhance students' pronunciation skills in Arabic letters (*ilmu ashwat*). The development process involved several stages: needs analysis, product design, validation by content, media, and language experts, limited trials involving seventh-grade students at MTs Darul Musthofa Seluma, and product revisions based on the trial results.

Data were collected through expert validation questionnaires, student response questionnaires, observations, and interviews. The validation results indicated that the ARAB BETA application was highly valid and suitable for use. As an Android-based platform, this application is expected to serve as a systematic, engaging, and accessible medium for learning Arabic phonetics.

This research was conducted using the Research and Development (R&D) method. This method is a process aimed at developing a productive and effective product or improving an existing product. The research model used by the author is the Borg and Gall development model, which consists of 10 stages designed to meet feasibility standards. The stages are as follows:

[16] Asep Sopian, Hikmah Maulani, & Shofa M. Khalid (2022), *Sastra Digital Dalam Pembelajaran Bahasa Arab Bagi Anak Dini di TK AL-QUR'AN (TKQ)*, Tarbiyatuna: Jurnal Pendidikan Islam.

[17] Aziz Syafrudin Syafrawi dan Hasan Saefuloh, Ibid.

[18] Taufik (2016)., *Pembelajaran Bahasa Arab MI*. UIN Sunan Ampel., hlm. 25

Submited: 2025-05-31	Revised: 2025-06-02	Accepted: 2025-07-02

Figure I.1 Stages of R&D Development (Borg & Gall, 1983). The research steps are as follows:[19]

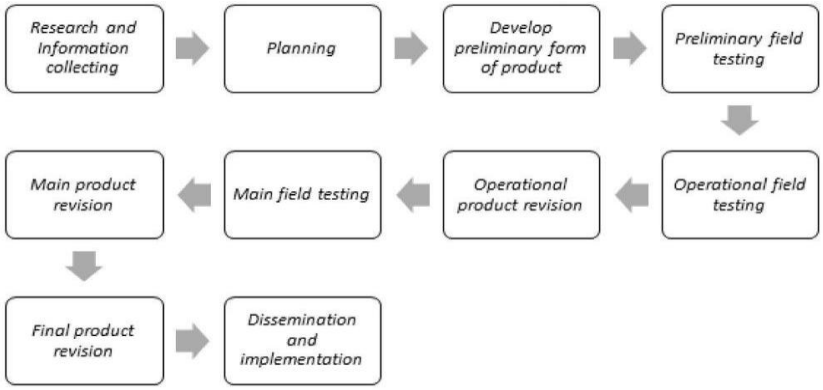


Figure I.1 Stages of R&D Development (Borg & Gall, 1983)

Data Collection Techniques

1) **In-depth Interview**

The interview process was conducted in two ways: unstructured and structured interviews. In the unstructured interview, the researcher went directly to the field, covering the design of the ARAB BETA learning media, the content of the learning materials, the audiovisual aspects of the ARAB BETA application, and the cover design of the application. In the structured interview, the researcher prepared several questions related to Arabic language rules, letter clarity, image clarity, and design aspects of the ARAB BETA application. **2) Documentation**, In this study, documentation includes books, magazines, articles, and previous research related to learning technology and educational media. **3) Data Validity**, Data validity is used to compare the results of observations with the results of interviews and data validation results.

2) **Data Validation**

In this study, there are two types of validation: content expert validation and media expert validation. Content expert validation functions to determine the appropriateness of the content with the Learning Design. The content expert validator in this study is Muhammad Hidayaturrahman, M.Pd.I., a Lecturer in Arabic Language Education at the State Islamic University Fatmawati Sukarno Bengkulu. He is also an Arabic language expert and an alumnus of the Master's Program in Arabic Language Education at the State Islamic University Maulana Malik Ibrahim Malang. Meanwhile, **Media Expert Validation** refers to a person who is an expert in the digital field **(***Tatwir Al-Muqarrar***)** and is competent in instructional material design. The media expert validator in this study is Falahun Ni'am, M.Pd.I., Coordinator of the Arabic Language Education Study Program

[19] Moh. Iqbal Assyauqi., *Model Pengembangan Borg and Gall*. hal. 4

Author: [1*]Abdullah Haryono, [2]Asep Sopian
Submited: 2025-05-31	Revised: 2025-06-02	Accepted: 2025-07-02

and a Lecturer in Arabic Language Education. He is also actively engaged in translating Indonesian pop songs into Arabic as a medium for teaching *maharah kalam* (speaking skills).

3) Research Instrumen

a research instrument is a tool used by researchers to produce more accurate, systematic, and easily processed data.

Content Feasibility Test Instrument (Content Expert)

The grid for content experts can be seen in the following table:

ASPECT	INDICATOR	ITEMS
Material Quality	Alignment of learning media with field needs	1
	Clarity of the objectives to be achieved	2
	Relevance to the established competency standards	3
	Completeness of the material	4
	Logical sequence of the material	5
Usefulness	Clarity of the material	6
	Depth of the material	7
	Accuracy of content	8
	Cognitive aspect	9
	Affective aspect	10
	Psychomotor aspect	11
	Compatibility of the material with the media	12
Total		**12**

Construct Feasibility Test Instrument (Media Expert)

Table: Aspects, Indicators, and Items of Media

ASPECT	INDICATOR	ITEMS
Function and Benefits of the ARAB BETA as an Information Medium	Clarifies the presentation of material	1
	Facilitates learning	2
	Overcomes time limitations	3
	Involves students more actively	4
	Stimulates learning enthusiasm	5
	Improves student understanding	6
Material Presentation Characteristics in the ARAB BETA	Attractive cover appearance	7
	Color composition used	8
	Accuracy of content	9
	Self-contained (can be used without external references)	10
	User-friendly	11
	Material is systematically arranged	12
		13
Total		**13**

Submited: 2025-05-31	Revised: 2025-06-02	Accepted: 2025-07-02

Data Analysis Technique

Qualitative Data

Table 5.5 Score Criteria Using Likert Scale

Criteria	No
Very Good	75-99%
Good	50-74%
Poor	25-49%
Very Poor	0-20%
Total	100%

To find the average in giving an assessment of the developed product, the following formula is used:

Explanation

$\bar{X}$= Rate Score

n= Total Respondent

$\sum X$= Total Score of respondent

1. Initial Condition

Table: Pretest Results

Percentage	Category	Frequency	Weight	Percentage	Rate
50-59	Very Poor	11	610	37%	
60-69	Poor	13	835	43%	
70-79	Fair	4	288	13%	63,33%
80-89	Good	2	166	7%	(Poor)
90-100	Very Good	-	-	-	
Total		**30**		**100%**	

2. Final Condition

Table 8.8 Posttest Results Using ARAB BETA

Percentage	Category	Percentage	Rate
0-20	Very Poor	-	
21-40	Poor	-	
41-60	Fair	-	
61-80	Good	33,5%	
81-100	Very Good	66,5%	
Total		**100%**	**92,93% (Very Good)**

Submited: 2025-05-31	Revised: 2025-06-02	Accepted: 2025-07-02

FINDINGS AND DISCUSSION

Critical Analysis: Implementation Challenges vs. Conventional Methods

Although ARAB BETA improved learning outcomes (pretest: 63.33% → posttest: 92.93%), its implementation at MTs Darul Musthofa Seluma faced systemic challenges:

Critical and Comparative Analysis of ARAB BETA

The use of the ARAB BETA application in teaching *al-Ashwat al-'Arabiyyah* to seventh-grade students at MTs Darul Musthofa Seluma has proven to enhance learning outcomes, with the average score increasing from 63.33% in the pre-test to 92.93% in the post-test. However, the effectiveness of this application requires deeper analysis by comparing its advantages, limitations, and implementation challenges with similar applications and conventional teaching methods.

The strength of ARAB BETA lies in its repeatable audio feature, self-evaluation system, and its interactive and engaging interface. These features allow students to practice their pronunciation until it is correct, which is essential in learning *al-Ashwat al-'Arabiyyah*.[20] However, the application has not yet been equipped with speech recognition and automatic feedback features, so pronunciation practice still relies on the user or the teacher. This limitation is also found in the Awlad School application. According to Sofi Anwar, the Awlad School app has not yet been designed with speech recognition and feedback features that support *al-Ashwat* learning, meaning that in this aspect, the teacher remains irreplaceable. Therefore, the inclusion of speech recognition and automated feedback is necessary to support independent pronunciation evaluation.[21]

When compared to Kahoot, ARAB BETA has a slight advantage in pronunciation practice and the integration of *al-Ashwat al-'Arabiyyah* material, whereas Kahoot focuses more on gamification and quick assessments through multiple-choice and short essay quizzes. According to Sholihah et al., Kahoot can enhance students' learning motivation and serve as a useful evaluation tool, but it is not suitable for *al-Ashwat al-'Arabiyyah* instruction, as the application requires a stable internet connection to operate effectively.[22] Aceng et al. also point out additional limitations of Kahoot, such as school policies prohibiting the use of smartphones or laptops, and the need for supporting facilities like an overhead projector and consistent electricity throughout the learning

[20] Ni'mah Salamiyah, A. (2024). *Ilmu Ashwat Dalam Pembelajaran Bahasa Arab. HUMANIS:Jurnal Ilmu-Ilmu Sosial dan Humaniora, 16(1), 39-48. https://doi.org/10.52166/humanis.v16i1.5729.*

[21] Mohammad Sofi Anwar., (2024)., *Penggunaan Aplikasi "Awlad School" dalam Pembelajaran Al-Ashwat Al-'Arabiyyah untuk Anak*. NATHLA, hlm. 10

[22] Imro'atus Sholihah, Nadia Khoirun Nisa, Nabella Ardama Cherya Krenata, (2013)., *Analisis Keuntungan dan Kerugian Kahoot sebagai Platforn Media Pembelajaran,* Jurnal Inovatif UIN Maliki, hlm. 5

Submited: 2025-05-31	Revised: 2025-06-02	Accepted: 2025-07-02

process.[23]Meanwhile, Duolingo offers pronunciation and vocabulary practice for *al-Ashwat al-'Arabiyyah* through adaptive learning, gamification, and immediate feedback. However, according to Azizah, technological limitations may reduce the quality of learner interaction.[24] Restriana further notes that the *al-Ashwat al-'Arabiyyah* content in Duolingo lacks depth compared to specialized applications like *ARAB BETA*.[25]

The innovation of Android-based learning applications for Arabic language instruction has proven to be highly effective, as demonstrated by the research of Siti Robi'ah et al.[26] Furthermore, Tohiri Habib's study shows that the integration of interactive digital media, gamification, and AI-assisted pronunciation tools can significantly improve Arabic speaking proficiency compared to conventional methods, although technical challenges and the need for teacher training still remain.[27]

From the perspective of traditional methods, Adri Lundeto, in his research, states that learning *al-Ashwat al-'Arabiyyah*is less effective and challenging, particularly in Arabic language learning that relies heavily on memorization and repetition exercises.[28] According to studies by Syaifudin et al. and Agustin et al., learning applications such as *ARAB BETA,* Duolingo, Kahoot, Awlad School, and Memrise are more effective in enhancing students' motivation, engagement, and learning outcomes compared to traditional methods.[29] However, the main challenges remain in the availability of infrastructure and the need for qualified teaching personnel.[30]

In Arabic language learning, the implementation of applications such as *ARAB BETA* faces several technical and non-technical challenges.[31] These include a lack of digital literacy among both teachers and students, limited access to devices and infrastructure, as well as unstable internet connectivity—all of which pose significant obstacles for effective integration. Additionally, according to Pramesti et al., other non-

[23] Aceng Cucu Bunyamin, Dewi Rika Juita, Noer Syalsiah., *Penggunaan Kahoot sebagai Media Pembelajaran Berbasis Permainan sebagai Bentuk Variasi Pembelajaran*. Institut Pendidikan Indonesia, Garut. hlm. 6

[24] Imroatul Azizah, *Urgensi Teknologi Pendidikan: Analisis Kelebihan dan Kekurangan Teknologi Pendidikan di Era Revolusi Industri 4.0.* ISTGHNA, hlm. 9.

[25] Restriana, A., U. Hijriyah, dan Koderi. "Efektivitas Pembelajaran Bahasa Arab dengan Aplikasi Duolingo: Literature Review." Shautul Arabiyah, 2025. https://arsip-journal.uin-alauddin.ac.id/index.php/Shautul-Arabiyah/article/view/55578.

[26] Siti Robi'ah, Muhammad Ja'far Shodiq, Tukimin, dan Henni Astuti., *Development of Interaktive Multimedia for Arabic Vocabulary Learning Through Android Applications*. International Journal of Arabic Language Teaching, hlm. 5.

[27] Habib, Moh. Tohiri. "Classroom Action Research on Digital Interactive Learning for Arabic Speaking Development in Islamic Junior High Schools." Al Muhawaroh 1, no. 1 (2025): 1–18. https://doi.org/10.38073/almuhawaroh.v1i1.2495.

[28] Adri Lundeto., (2009), *Analisis Metode Pengajaran Fonetik dan Morfologi Bahasa Arab*. Jurnal Iqra', hlm. 7.

[29] Syaifudin, S., N. Agustin, dan L. Musyafa'ah. "Pemanfaatan Aplikasi Pembelajaran Bahasa Arab." J-PLED, 2022;

[30] Imroatul Azizah, *Urgensi Teknologi Pendidikan: Analisis Kelebihan dan Kekurangan Teknologi Pendidikan di Era Revolusi Industri 4.0.* ISTGHNA, hlm. 9.

[31] Agustin, N., et al. "Efektivitas Media Digital dalam Pembelajaran Fonetik Arab." Jurnal Pendidikan Bahasa Arab, 2023.

Author: [1*]Abdullah Haryono, [2]Asep Sopian

Submited: 2025-05-31	Revised: 2025-06-02	Accepted: 2025-07-02

technical barriers include the lack of intensive teacher training and time constraints, both of which affect the overall effectiveness of application implementation.[32]

Previous studies tend to highlight the advantages of technology in Arabic language learning, yet few have critically evaluated the limitations of such applications within real school contexts—particularly regarding curriculum adaptation, teacher training, and policy support. This gap is also evident in the case of *ARAB BETA,* where the application's development has not been fully integrated with the needs of the national curriculum and lacks a data-driven learning outcome monitoring system.[33]

1. Description of ARAB BETA

ARAB BETA is an Arabic language learning application designed for all age groups. This application was developed using the Jagel.id website and app platform. Currently, ARAB BETA features seven interfaces for learning Tajweed and Ashwat sciences. The learning methods applied in this app are developed through Jagel.id and the author's website. More information about this application can be found on Google Play Store.

Figure 1. Icon of the ARAB BETA application

ARAB BETA is a software or application for learning the Arabic language designed for all ages. This software was created and developed using the Jagel.id website and application. Currently, ARAB BETA features 7 interfaces for learning Tajweed and Ashwat sciences. The methods used in this application were developed through the Jagel.id app and the author's website. More information can be found on Google Play.

Features Offered by ARAB BETA

[32] Elkheir, Yassine. "QVoice: Arabic Speech Pronunciation Learning Application." arXiv preprint arXiv:2305.07445 (2023). https://arxiv.org/abs/2305.07445.

[33] LP2M IAIN Parepare. "Belajar Bahasa Arab: Mengapa Sulit dan Bagaimana Cara Mengatasinya." 2025. https://lp2m.iainpare.ac.id/blog/riset-3/belajar-bahasa-arab-mengapa-sulit-dan-bagaimana-cara-mengatasinya-218

Submited: 2025-05-31	Revised: 2025-06-02	Accepted: 2025-07-02

Interactive and Educational

ARAB BETA uses a cartoon approach to deliver lessons, making the material more attractive and enjoyable for children. With its interactive and educational features, it is expected that children using this application will be interested in learning Arabic, especially Al-Ashwat Al-'Arabiyyah, through interactive and educational Hijaiyah letter features. Below is a display of the ARAB BETA application:

Introduction to Letters and Phonetics in Ilmu Ashwat

The ARAB BETA application provides a feature for introducing letters and phonetics that teaches materials related to *Ilmu Ashwat* (Al-Jauf, Al-Halq, Al-Lisan, Al-Khaisyum, and Asy-Syafatain). This feature is used under the guidance of a teacher. Through this, students can learn *al-Ashwat* in an engaging and enjoyable way. Below is an example display of the letters and phonetics feature in the ARAB BETA application:

Figure 3: Display of the Letters and Phonetics Feature in the *ARAB BETA*.

Figure. 4. Fitur and fonetic in *ARAB BETA*.

Author: [1*]Abdullah Haryono, [2]Asep Sopian

Submited: 2025-05-31	Revised: 2025-06-02	Accepted: 2025-07-02

Practice Video Format

The ARAB BETA application is designed with a child-friendly and well-structured video format. This is evident in its interface, which features both children's and adult voices depending on the feature being used. As a result, both children and adults using the application can enjoy and engage positively with the learning content provided. Below is an example of the practice video format display in the ARAB BETA application:

Figure 5: Pronunciation Practice of the Letter Alif

Learning Al-Ashwat Al-'Arabiyyah Using the ARAB BETA Application

1) Install the ARAB BETA Application

The first step in learning Al-Ashwat Al-'Arabiyyah is to install the application. Begin by downloading the Jagel.id app from Google Play. After downloading, log in using your email account, then proceed to download ARAB BETA. Once the ARAB BETA icon appears—a red logo with the application name as previously shown—you can install it directly. Let me know if you want me to help with a step-by-step guide or screenshots for this process!

2) Selecting Learning Material Options

To select the learning material, the user must open the home page by clicking the home icon (a house image). On this menu, several options are available. For the Al-Ashwat Al-'Arabiyyah material, there are five choices: Al-Jau', Al-Halq, Al-Lisan, Al-Khaisyum, and Asy-Syafatain. Additionally, the application includes features for learning Ilmu Tajwid and audio or video exercises for practicing the pronunciation of Hijaiyyah letters. The app also contains the full set of Hijaiyyah letters. To learn Al-Ashwat Al-'Arabiyyah, simply click on the option you want to study. Would you like me to help make this into a user-friendly tutorial or add screenshots?

3) Select the Group of Letters to Learn

To select the group of letters to learn, users can click on the index shown in Figure 7. In this menu, users can choose the group of letters they want to study. For first-time use, it is recommended to follow the order from the top.

Submited: 2025-05-31	Revised: 2025-06-02	Accepted: 2025-07-02

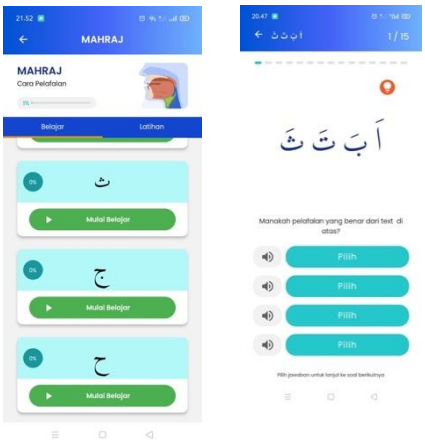
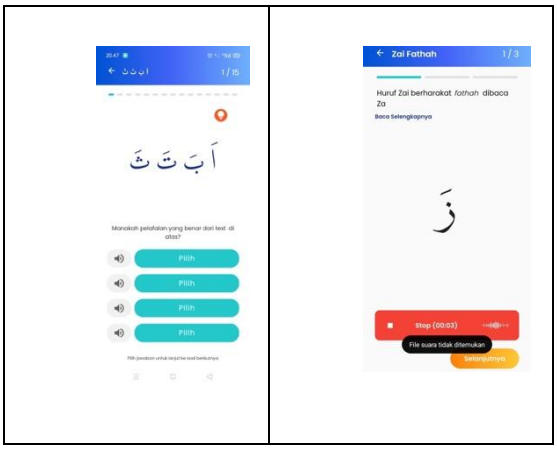


Figure 7: Display of Letter Group Selection in the ARAB BETA Application

Continue the Learning Process for the Selected Letter Group

By clicking **Start** on the chosen letter group, the user should follow the learning activities provided within. These activities include: Listening to the selected group of Hijaiyyah letters and then practicing independently. Listening again to the chosen letter group while also viewing how to write those letters. Finally, students are asked to match the pronunciation of the Hijaiyyah letters with their corresponding letter symbols.

Table 2: Example of Learning Activity Display in the ARAB BETA Application



Based on the table above, the learning of Al-Ashwat Al-'Arabiyyah not only encourages students to pronounce the Hijaiyyah letters correctly but also teaches them how to write the letters properly. This learning activity serves as a test that will be scored once completed. After finishing, a notification will appear showing the student's results along with feedback on their practice or test.

CONCLUSION

Based on the research findings and discussion on the development of the Al-Ashwat Al-'Arabiyyah learning media through the ARAB BETA application at MTs Darul Musthofa Seluma, the following conclusions were drawn:

Author: [1*]Abdullah Haryono, [2]Asep Sopian

Submited: 2025-05-31	Revised: 2025-06-02	Accepted: 2025-07-02

This study resulted in the creation of a learning application for Al-Ashwat Al-'Arabiyyah named ARAB BETA. The development of this media followed several stages using the Borg and Gall R&D model. The application consists of five chapters on Al-Ashwat Al-'Arabiyyah. The ARAB BETA learning media, which is based on Articulate Storyline, was found to be highly effective. This is based on expert validation tests and pre-test and post-test results. The use of the ARAB BETA application increased the average pronunciation score of students from 63.33% to 92.93%**,** showing an improvement of **15%**. This proves that the ARAB BETA application is effective in helping Grade VII students of MTs Darul Musthofa Seluma master *al-ashwat al-'arabiyyah*, especially through its repeated audio feature and interactive exercises. However, due to some limitations—such as the absence of speech recognition and automated feedback—further development is still needed. It is recommended that future developers add a speech recognition feature, and that teachers integrate this application into a blended learning approach**.**

RECOMENDATION

Future researchers are expected to further develop this application-based learning media so that it can be published on APK platforms or similar, allowing it to be used offline by teachers and students without requiring an internet connection.

Submited: 2025-05-31	Revised: 2025-06-02	Accepted: 2025-07-02

BIBLIOGRAPHY

Ni'mah K, Anisa'atus Salamiyah., *Ilmu Ashwat dalam Pembelajaran Bahasa Arab.* HUMANIS: Jurnal Ilmu-ilmu Sosial dan Humaniora, Volume 16, 2004.

M. Nur Sholihin, (2020)., *Peran Ilmu Ashwat dalam Pelafalan Huruf Hijaiyyah (KajianTeoritik Linguistik Terapan)*. SALIHA: Jurnal Pendidikan & Agama Islam, Volume 3, Nomor 2. hlm. 110-127

Ahmad Sayuti Anshari Nasution, (2018)., *Bunyi Bahasa*. Amzah, hlm. 114

M. Nashiruddin, Himmatul Azizah., (2018)., *Pembelajaran Mufrodat Pendekatan Ashwat Panjang Pendek*. International Conference of Students on Arabic Language.

Mufidah, N. (2018). *Metode Pembelajaran Al-Ashwat*. al Mahāra: Jurnal Pendidikan Bahasa Arab, 4(2), 199–218.https://doi.org/10.14421/almahara.2018.042-03

Salma, dkk., (2024)., Needs Analysis of Development Ilmu Ashwat to Improve Speaking Skills Using Thunkable Applications/ تحليل احتياجات تطوير علم الأصوات العربية لتحسين مهارة الكلام باستخدام برمجة Thunkable

Puspita, S., & Yuliani, N., (2021)., *Integrasi Pembelajaran Pelafalan Huruf Hijaiyyah dalam Membaca Al-Qur'an*.

Robi'ah Nilla Fauziah., (2018)., *Ta'lim al-Ashwat lil Athfal 'abri Android (Dirosah Tajriibiyyah 'Ashwat al-Huruf al-Hijaiyyah fii Madrosah Ta'lim al-Qur'an bi Masjid Raya Bintaro Jaya*.

Lamia Berriche, Maha Driss, Areej Ahmed Almuntashari, Asma Mufreh Lghabi, Heba Saleh Almudhi, Munerah Abdul-Aziz Almansour, *ArPA: A Novel Speech Analiysis and Correction Tool for Arabic-Speaking Children.* CS Department, CCIS, Prince Sultan University, Riyadh 12345, Saudi Arabia.

Sicong Shao Saleem Alhariri, Alim Hariri, dkk., *AI-Based Arabic Language and Speech Tutor*. University of Arizona.

Amri Tanduklangi, Carlina Amri., (2019)., *Manajemen Sumber Daya Pembelajaran Bahasa Berbantuan Komputer CALL (Computer Assisted Language Learning)*. DEEPUBLISH, hlm. 65.

Ronny Sandra Yofa Zebua, *Fenomena Artificial Intelligence*, PT. Sonpedia Publishing Indonesia, hlm. 38.

Munir, (2012)., *Multimedia Konsep & Aplikasi dalam Pendidikan*. Alfabeta CV, hlm. 44.

Raudatul Firdausinnisa, Julkarnain, Abdul Azis., (2024)., *Jenis Media Pembelajaran Bahasa Arab*. Al-Afkar, hlm. 9.

Abdal-Hamid, M., & Elmahdy, M. (2015). *Developing Offline Text-to-Speech Systems for Language Learning*. International Journal of Computer Applications, 121(20), 12-18.

Asep Sopian, Hikmah Maulani, & Shofa M. Khalid (2022), *Sastra Digital Dalam Pembelajaran Bahasa Arab Bagi Anak Dini di TK AL-QUR'AN (TKQ)*, Tarbiyatuna: Jurnal Pendidikan Islam.

Aziz Syafrudin Syafrawi dan Hasan Saefuloh, Ibid.

Taufik (2016)., *Pembelajaran Bahasa Arab MI*. UIN Sunan Ampel., hlm. 25

Moh. Iqbal Assyauqi., *Model Pengembangan Borg and Gall*. hal. 4

Submited: 2025-05-31	Revised: 2025-06-02	Accepted: 2025-07-02

Ni'mah Salamiyah, A. (2024). *Ilmu Ashwat Dalam Pembelajaran Bahasa Arab. HUMANIS:Jurnal Ilmu-Ilmu Sosial dan Humaniora, 16(1), 39-48. https://doi.org/10.52166/humanis .v16i1.5729*.

Mohammad Sofi Anwar., (2024)., *Penggunaan Aplikasi "Awlad School" dalam Pembelajaran Al-Ashwat Al-'Arabiyyah untuk Anak*. NATHLA, hlm. 10

Imro'atus Sholihah, Nadia Khoirun Nisa, Nabella Ardama Cherya Krenata, (2013)., *Analisis Keuntungan dan Kerugian Kahoot sebagai Platforn Media Pembelajaran,* Jurnal Inovatif UIN Maliki, hlm. 5

Wawancara Guru MTs Darul Musthofa Seluma, 2025.

Syaifudin, S., N. Agustin, dan L. Musyafa'ah, "Pemanfaatan Aplikasi Pembelajaran Bahasa Arab," J-PLED, 2022; N. Agustin et al., "Efektivitas Media Digital dalam Pembelajaran Fonetik Arab," Jurnal Pendidikan Bahasa Arab, 2023.

Kuesioner Siswa MTs Darul Musthofa Seluma, 2025; D. Pramesti et al., "Tantangan Implementasi Media Digital dalam Pembelajaran Bahasa Arab," Jurnal Pendidikan Bahasa Arab, 2025.

Data Kuesioner Siswa MTs Darul Musthofa Seluma, 2025.

Aceng Cucu Bunyamin, Dewi Rika Juita, Noer Syalsiah., *Penggunaan Kahoot sebagai Media Pembelajaran Berbasis Permainan sebagai Bentuk Variasi Pembelajaran*. Institut Pendidikan Indonesia, Garut. hlm. 6

Imroatul Azizah, *Urgensi Teknologi Pendidikan: Analisis Kelebihan dan Kekurangan Teknologi Pendidikan di Era Revolusi Industri 4.0.* ISTGHNA, hlm. 9.

Restriana, A., U. Hijriyah, dan Koderi. "Efektivitas Pembelajaran Bahasa Arab dengan Aplikasi Duolingo: Literature Review." Shautul Arabiyah, 2025. https://arsip-journal.uin-alauddin.ac.id/index.php/Shautul-Arabiyah/article/view/55578.

Siti Robi'ah, Muhammad Ja'far Shodiq, Tukimin, dan Henni Astuti., *Development of Interaktive Multimedia for Arabic Vocabulary Learning Through Android Applications*. International Journal of Arabic Language Teaching, hlm. 5.

Habib, Moh. Tohiri. "Classroom Action Research on Digital Interactive Learning for Arabic Speaking Development in Islamic Junior High Schools." Al Muhawaroh 1, no. 1 (2025): 1–18. https://doi.org/10.38073/almuhawaroh.v1i1.2495.

Adri Lundeto., (2009), *Analisis Metode Pengajaran Fonetik dan Morfologi Bahasa Arab*. Jurnal Iqra', hlm. 7.

Imroatul Azizah, *Urgensi Teknologi Pendidikan: Analisis Kelebihan dan Kekurangan Teknologi Pendidikan di Era Revolusi Industri 4.0.* ISTGHNA, hlm. 9.

Elkheir, Yassine. "QVoice: Arabic Speech Pronunciation Learning Application." arXiv preprint arXiv:2305.07445 (2023). https://arxiv.org/abs/2305.07445.

Yassine Elkheir, "QVoice: Arabic Speech Pronunciation Learning Application," arXiv preprint arXiv:2305.07445 (2023); A. Restriana, U. Hijriyah, dan Koderi, "Efektivitas Pembelajaran Bahasa Arab dengan Aplikasi Duolingo: Literature Review," Shautul Arabiyah, 2025.

LP2M IAIN Parepare. "Belajar Bahasa Arab: Mengapa Sulit dan Bagaimana Cara Mengatasinya." 2025. https://lp2m.iainpare.ac.id/blog/riset-3/belajar-bahasa-arab-mengapa-sulit-dan-bagaimana-cara-mengatasinya-218