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Analysis of Phonetic Errors in Maharah Qira'ah Students of MTs Central Lampung

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Abstract

This study aims to analyze phonetic errors in reading skills (*maharah qira'ah*) among eighth-grade students of MTs Ma'arif 22 Bangunrejo, Central Lampung. The main problem addressed in this research is the low accuracy in pronouncing Arabic letters according to their *makharijul huruf* (articulation points) and phonetic features, which affects students' comprehension of Arabic texts. This study employs a qualitative descriptive approach with data collected through observation, interviews, and documentation. The data were analyzed through the stages of reduction, display, and conclusion drawing. The findings reveal four main categories of phonetic errors: (1) errors in articulating adjacent letters, (2) errors in distinguishing similar phonetic features, (3) errors in pronouncing semivowels (*mad* and *lin*), and (4) fatal errors resulting from widely different sounds. Contributing factors include low learning motivation, non-religious educational backgrounds, regional dialect interference, and limited learning media and teaching variation. The study concludes that effective Arabic phonetic learning requires consistent pronunciation practice, short-text reading drills, and the integration of digital audio-visual media. The implications highlight the need for Arabic language teachers to develop contextual, communicative, and technology-based phonetic teaching strategies to minimize students' phonetic errors effectively.

Keywords: Phonetic Errors, Maharah Qira'ah, Arabic Learning

مستخلص البحث

يهدف هذا البحث إلى تحليل الأخطاء الفونيتِيكِيَّة في مهارة القراءة لدى طلاب الصف الثامن بمدرسة معارف ٢٢ بنغونريجو بمنطقة لمبونغ تنغاه. وتتمثل المشكلة الرئيسة في ضعف دقة نطق الحروف العربية وعدم مطابقتها لمخارجها وصفاتها الصوتية، مما يؤثر على فهم النصوص العربية المقروءة. اتبع الباحث المنهج الوصفي النوعي، واستخدم في جمع البيانات أدوات الملاحظة والمقابلة والتوثيق، وتم تحليل البيانات عبر مراحل التخفيض والعرض واستخلاص النتائج. وأظهرت النتائج أن الأخطاء الفونيتِيكِيَّة تنقسم إلى أربع فئات رئيسة، وهي: خطأ في مخارج الحروف المتقاربة، وخطأ في صفات الحروف المتشابهة، وخطأ في نطق الأصوات النصف حرفية (المد واللين)، وخطأ فادح ناتج عن اختلاف الأصوات البعيدة. وتعود أسباب هذه الأخطاء إلى ضعف الدافعية التعليمية، والخلفية التعليمية غير الدينية، وتأثير اللهجة المحلية، وقلة الوسائل والطرق التعليمية. ويخلص البحث إلى أن تعلم الفونيتِيك العربي يحتاج إلى تدريب منتظم على النطق، واعتياد على قراءة النصوص القصيرة، والاستفادة من الوسائل الرقمية القائمة على الصوت والصورة. وتتضمن الآثار التطبيقية لهذا البحث أنه ينبغي لمعلمي اللغة العربية أن يطوروا استراتيجيات تعليم فونيتِيكِيّ سياقية وتواصلية قائمة على التقنية لتقليل الأخطاء الفونيتِيكِيَّة لدى الطلاب بشكل فعال.

الكلمات المفتاحية: الأخطاء الفونيتِيكِيَّة، مهارة القراءة، تعليم اللغة العربية.

Introduction/ المقدمة

Language is a means of communication in the form of sounds or speech used by humans to convey intentions during interactions. Language is also understood as an arbitrary system that governs sound codes allowing thoughts and feelings to be exchanged among its speakers. Language skills encompass four main abilities, namely listening, speaking, reading and writing. In learning Arabic, these four abilities are known as maharah istima', maharah kalam, maharah qira'ah, and maharah kitabah (Taubah, 2019). Reading skills (*maharah qira'ah*) are an important competence in acquiring Arabic as a foreign language, so the learning objectives are aimed at enabling students to understand texts accurately and to have good motivation in reading activities. (Hidayatul, 2020). Nevertheless, reading Arabic texts is not an easy activity and is often considered boring. Although many Indonesians are accustomed to reading the Qur'an and Hadith, this activity generally remains at the level of loud reading without a deep understanding of the meaning and phonetic aspects of the sounds. Phonetics, as a branch of linguistics, focuses on the study of the physical aspects of speech sounds, including sound formation, articulators, the vocal tract, sound properties, and their variations.

In the process of second language (L2) acquisition, language errors are a normal phenomenon and can appear in both spoken and written forms. These errors are related to deviations in the proper use of language elements. One form of language error is phonological errors, which occur at the sound level, whether at the word, phrase, clause, or sentence level. Phonological errors can occur in both oral production and sound perception (Lathifah, Syihabuddin, & Al Farisi, 2017). Arabic language learning in Madrasah Tsanawiyah (MTs) requires mastery of both oral and written skills. However, as a foreign language (B2), the potential for errors remains high, including phonetic mistakes when reading texts. The selection of eighth-grade students at MTs Ma'arif 22 Bangunrejo as the research subjects was based on the consideration that at the MTs level, reading skills are at a crucial stage in acquiring Arabic and are prone to phonetic errors. Initial observations showed pronunciation errors of letters such as ث read as /ts/, ح read as a normal /h/, خ read like غ, and

similar mistakes in several words such as خَرَجَ becoming أَيَّامِ ,غَرَجَ becoming أَوَّمِ, and ثُمَّ becoming سُمَّ. These mistakes affect the understanding of the text's content, causing the meaning to not be conveyed accurately. Ideally, as an Islamic-based educational institution, phonetic errors in reading Arabic texts should be minimised.

Several previous studies have examined phonetic errors in Arabic reading skills. However, existing studies are still limited to general descriptions of phonology or the pronunciation of certain letters without in-depth articulatory phonetic analysis based on makhraj and letter characteristics. For example, Muhammad Fikri Al-Hakim's research at the MTs level has not focused on detailed articulatory phonetic analysis (Fikri & Hakim, 2023). Amiqotul Aqidah's research at MTs Al-Amiriyyah Banyuwangi only discussed several errors in the pronunciation of hijaiyah letters without a comprehensive phonetic classification arrangement. (Aqidah, 2022). Nisda Fahrunnisa's research observes errors in vowel and consonant sounds but has not yet analysed them based on articulation points and the characteristics of the letters (Fahrunnisa, 2019). Meanwhile, Ratna Asih's research does not explicitly differentiate categories of phonetic errors and has not related them to students' background factors (Asih, 2020). Meanwhile, Ardia Nur Fadhila's research focuses more on Qur'anic readings and aspects of tajwid, so it does not lead to phonetic analysis in non-Qur'anic texts (Ardia Nur Fadhila, 2023). Thus, the majority of previous studies have not provided a systematic taxonomic framework for phonetic errors based on articulatory theory

Based on this gap, this study offers novelty in the form of developing a more comprehensive phonetic error classification model in reading Arabic texts. This classification combines articulatory phonetic theory with linguistic error analysis, so that errors are not only identified based on sound shape, but also grouped based on where letters come out (makhraj), letter properties, sound substitution patterns, and influencing articulatory factors. This four-category classification model has not been used in previous studies. In addition, this study expands the theoretical contribution by mapping the relationship between makhraj–articulator–error patterns associated

with first language (L1) interference as well as the influence of local dialects. These findings not only enrich articulatory phonetic theory in the context of B2 Arabic learning, but also provide an applicative basis for the development of pedagogical strategies in maharah qira'ah. The practical contribution of this research can be seen through the preparation of more targeted learning recommendations based on the identified phonetic error patterns. Thus, this study not only offers a difference in study locations, but also a new contribution to the development of a systematic and applicable articulatory phonetic analysis framework at the Madrasah Tsanawiyah level.

The main focus of this research is to identify phonetic errors in maharah qira'ah students of grade VIII MTs Ma'arif 22 Bangunrejo, Central Lampung. Therefore, the formulation of the problem includes: (1) what are the forms of phonetic errors made by students in maharah qira'ah, (2) what factors cause the appearance of phonetic errors, and (3) efforts that can be made to minimize phonetic errors of students in learning Arabic. By answering the formulation of this problem, this research is expected to make a significant contribution to the development of the theory and practice of Arabic articulatory phonetic learning at the Madrasah Tsanawiyah level.

Methods/ منهجية البحث

This research uses a descriptive qualitative method. The qualitative approach was chosen because this study aims to obtain data in the form of words, narratives, and in-depth descriptions, not statistical figures. Through this approach, researchers can understand the phenomenon holistically and uncover the meaning behind students' behaviors, experiences, and language errors in a natural context. Descriptive nature is used because this study seeks to describe systematically and factually the form, types, and factors that cause phonetic errors that occur in reading skills (*maharah qirā'ah*). This approach is in line with Zonyfar's opinion that descriptive research is appropriate to provide a comprehensive understanding of a phenomenon without manipulating variables (Zonyfar et al., 2022).

The main instrument of research is the researcher himself as a key instrument. This instrument is strengthened by a phonetic observation sheet that contains assessment indicators related to the suitability of makhraj, letter properties, long-short (*mad-qasr*), and fatal errors due to sound changes. In addition, structured interview guidelines are also used to explore the causes of errors, learning experiences, and efforts to improve reading by students. Audio and video recordings are used to document students' pronunciation so that they can be analyzed repeatedly, while phonetic analysis guidelines are the basis of reference in the evaluation process. This phonetic guide refers to Arabic phonetic rules, makhraj standards and letter properties according to tajweed scholars, the pronunciation model of mushaf al-Madīnah, as well as references to International Phonetic Alphabet (IPA) symbols for marking specific sounds. The mechanism for determining the form of error is carried out systematically through the process of recording student readings, transcription of sounds into scientific phonetic symbols, comparison of pronunciation with Arabic phonetic standards, and grouping of types of errors based on makhraj categories, letter properties, long-short, semivowel sounds (mad and lin), and fatal errors due to significant differences in sounds. The error results are then calculated in frequency to determine their tendency and distribution.

The data validity procedure is carried out through triangulation of methods and sources, member checks, and inter-rater reliability. Through inter-rater reliability, error analysis was carried out by two independent assessors who are experts in the field of Arabic phonetics. Both assessors independently examine the student's pronunciation recordings and determine the category of errors based on the indicators that have been set. If there is a difference in the identification results, discussions are held until an agreement is reached. The level of agreement between assessors is used as an indicator of data reliability, so that the results of the analysis obtained are more objective and accountable.

Data analysis was carried out using the Miles and Huberman model which includes three stages, namely: *data reduction*, this stage is carried out to select,

simplify, and focus data that is relevant to the research purpose, especially related to phonetic errors that affect the meaning of reading. Second, the presentation of data (*data display*), the data that has been reduced is then presented in the form of descriptive narratives, tables, and charts that describe the categories of students' errors in reading Arabic texts so as to facilitate the analysis of error patterns and the relationship between the causative factors and the type of error. Finally, *this stage of conclusion drawing and verification is* carried out by inductive conclusion drawing based on empirical evidence that has been verified through the triangulation process.

This analysis model is complemented by the application of *Error Analysis theory* according to Tarigan (Tarigan & Tarigan, 2021) which includes error identification, error classification, explanation of the form and cause of error, determination of the frequency and character of errors, and interpretation based on Arabic phonetic theory and the principle of second language acquisition. Thus, this research is expected to be able to produce an accurate, comprehensive, and reliable description of the form of phonetic errors and their causative factors in the learning of maharah qirā'ah at the madrasah level.

Result and Discussion

Classification of Types and Forms of Mistakes Made by Central Lampung Mts Students

In the results of the discussion, it was analyzed and errors were found that occurred when reading Arabic texts. The author distinguishes the errors of these sounds into sounds that have no function (phonetic). The data found is data that is seen from a linguistic perspective.

Table 1. Types of Student Phonetic Errors

No	Original Letters → Incorrect Letters	Example Words	Types of Phonetic Errors	Phonetic Explanation

No	Original Letters → Incorrect Letters	Example Words	Types of Phonetic Errors	Phonetic Explanation
1	ع (‘ain) → ء (hamzah)	مَعَ ⟶ مَأَ	Nearby makhraj (throat/pharynx)	“ ع ” ‘Ain comes out of wasath al-halq (middle of the throat), while hamzah " ء" comes from aqsa al-halq (the base of the throat). These two letters have different properties.
2	ث (tsa) → س (sa)	ثُمَّ ⟶ سُمَّ	Makhraj has different similar properties	“ ث “ coming out between the two upper and lower front teeth (interdental), " س " from the base of the upper tooth (alveolar). Both are hams (hissing breath)
3	ش (sya) → س (sa)	شَهْرًا ⟶ سَهْرًا	Makhraj and nearby properties	“ ش “ From the wasth al lisan (middle of the tongue to the sky), " س " from the tip of the tongue to the gums ata. Both are hams (hissing breath), sapphire (whistling), and mutajanisain sounds.
4	خ (kho) → ح (ha)	خَدِيْجَةَ ⟶ حَدِيْجَةَ	Nearby Makhraj and nearby properties	“ خ ” From Aqsa al-Oral to the soft sky (uvular), " ح" from wasth al-halq (middle throat). The letter " خ " is a voiced consonant while the letter " ح" is a voiceless consonant.
5	ح (ha)	يَهْتَلِفُونَ	Makhraj nearby, similar	“ ح ” From Wasth al-Halq

No	Original Letters → Incorrect Letters	Example Words	Types of Phonetic Errors	Phonetic Explanation
	→ ه (Soft Ha)	⟶ يَحْتَلِفُونَ	properties	(Middle Throat), " ه " from Adna al-Halq (Base of the Throat). Both are hams (breath blowing), but " ح" is more strongly pressed.
6	خ (kho) → غ (gho)	غَرَجَ ⟶ خَرَجَ	Makhraj is the same, the nature is different (voicing)	Both came out of the same place, namely aqsa al-lisan (throat tip), but the letter "خ" was silent while the letter "غ" was sound..
7	ش (sya) → ص (sho)	اَلصَّامِ ⟶ اَلشَّامِ	Makhraj is different, traits are different	" ش" is a thin letter (muraqafah), while " ص" is thick (tafkhim / isti'la). The sound of the letter " ص" is heavier and emphatic (emphasis).
8	ي (ya) → و (waw)	أَوَّمٍ ⟶ أَيَّامِ	The class of letters is the same (lin, mad) but makhraj is different	" ي " from the middle of the tongue to the hard palatal palate, " و" from between the two round lips and throat. The two are semi-vocal so they are often confused.
9	م (mim) → ه (ha)	اِنَّمَّا ⟶ اِنَّهَا	Makhraj and traits are very different	" م " from closing the lips (bilabial), it is nasal (ghunnah), while " ه" is from the base of the throat and is speechless. This is a big mistake and not close.
10	ض (dlad)	بَعْصَ ⟶	Makhraj nearby, similar	" ض" from safhat al-lisan (side of the tongue to the upper teeth of

No	Original Letters → Incorrect Letters	Example Words	Types of Phonetic Errors	Phonetic Explanation
	→ ص (sho)	بَعْضَ	properties	the graham), " ص" from the base of the tongue to the upper gums. Both bold (tafkhim) and emphatic (pressure).

The results of the study show that phonetic errors made by students are classified into four forms including:

1. Errors in the pronunciation of letters whose makhraj are close together. It shows the tendency of substitution between letters whose articulation places are close (makhraj), such as ع (middle throat) with ء (base of throat), as well as the replacement خ of with ح, or خ with غ. This finding is in line with the research of Nurul Hidayah and Ummi Ulya, who found similar errors between groups of throat letters, where students often swap throat letters such as غ ,ح ,خ due to lack of understanding of makhraj and not used to listening to the correct pronunciation (Hidayah & Ulya, 2021). This is also found in research by Algabri in the journal *Mathematics* indexed by Scopus through a machine learning system showing that substitutions such as ع↔ء or خ↔ح are common mistakes in Arabic phonetics due to the limitations of articulation perception (Algabri, Mathkour, Alsulaiman, & Bencherif, 2022). This error stems from articulatory proximaity, letters with output points that are too close together are easily confused if not taught visually and auditoryly.
2. Errors in the pronunciation of similar letter properties. According to the place of mispronunciation of the letters *aphicointerdental* س⟶ث,

alveopalatal س→ش, *aphicoalveolar* ص⟶ض ,ص⟶ش. Substitution of letters (e.g.: equally hissing or equally fricative) is widely found in secondary students. In line with the research of Amrulloh and Hasanah, it was found that س⟶ث the error and س⟶شoccurred because students were not able to distinguish the characteristics of hiss and air pressure in pronunciation (Amrulloh & Hasanah, 2019), Furthermore Selim Calik in *An ensemblebased framework for mispronunciation detection of arabic phonemes* despite their focus on phoneme detection models, they identified the substitution of fricative and sibilant groups as the most common errors in Arabic phonemes (Calık, Kucukmanisa, & Kilimci, 2023). Similarly, Akhtar in the journal *Electronic* used CNN to detect mispronunciation in Arabic letters, and mentioned that fricatives and sibilants (ث, س, ش, ص) were the groups with the highest error rate due to the similarity of acoustic features (Akhtar et al., 2020). This type of error explains that students experience problems in the phonetic perception of the manner ***of articulation feature***. Therefore, teaching phonetics is not enough by reading examples, but rather requires a minimal pair-based approach (practice distinguishing two similar sounds), as well as visualization of airflow through animation or Arabic phoneme pronunciation applications.

3. Errors in semivowel sounds (mad/lin). Example on the letter: و → ي. The letters mad (long vowels), lin (semi-consonants), and semi-vowels such as ي and are وoften misinterpreted due to their similarity to sound waves and acoustic qualities. Rahmatia Darwis fattened vowel and semi-consonant pronunciation errors, including semivowel substitutions at the segmental level (Rahmatia, Darwis, & Lukman, 2021), according to (Algabri et al., 2022) and (Akhtar et al., 2020) showing that non-Arabic

speaking students tend to exchange ي and و Due to the proximity of the formant frequencies on the spectrogram, it is difficult to distinguish without visual phonetic training. Acoustically, طول (*vowel length*) and vowel quality in Arabic are similar between ي (iː) and و (uː), so without explicit phonetic awareness, especially in makharij and vowel traits, students are prone to elision or substitution. This error reflects a weak understanding of vowel length (mad) and semivocal voice transitions, so students need training with the help of sound spectrograms, slow voice recordings, and Computer Assisted Language Learning (CALL)-based training.

4. Heavy errors due to very different pronunciation of letters. Mispronunciations such as "م" to " هـ", reflect phonetic interference from regional languages as well as lack of articulation control. In the context of the recitation of the Qur'an, Al Harere and Al Jallad's research confirms that tajweed errors related to the makhraj of letters, such as the exchange of voiced and voiceless consonants, are categorized as heavy because they violate the basic rules of qirā'ah (Harere & Jallad, 2023). This is reinforced by the El Kheir International Benchmark Study which developed the Qur'anic Mispronunciation Benchmark (QuranMB.v1), where the category of severe (fatal) errors is defined as errors that produce different phonemes from the original target (Kheir et al., 2025). Even recent spectrographic analyses show that changes in the phoneme /q/ in non-Arabic learners result in acoustic patterns that are markedly different from standard pronunciation, which empirically proves the nature of this error to be fatal (Fadia, Al Farisi, & Maulani, 2024).

The findings of the study regarding the four forms of phonetic errors committed by students can be explained through the perspective of second language phonology acquisition (L2), specifically through three main concepts: mother tongue

transfer (L1 transfer), interlanguage phonology, and phoneme perception. Errors in substitution between letters with adjacent makhraj, such as ء↔ع or ح↔خ, indicate that the learner maps Arabic sounds into the category of first language sounds (L1) that are considered the most similar. Within the framework of the Speech Learning Model (SLM), learners sometimes fail to form new phoneme categories if the L2 sound is considered too similar to the L1 sound, resulting in category assimilation and consequently sounds produced close to L1 (Flege, Aoyama, & Bohn, 2021). This phenomenon appears in the tendency of students to swap throat consonants because they do not yet have a stable phonological representation of their acoustic characteristics and articulation places.

Furthermore, errors in the nature of letters (e.g. ص→ض, س→ش, س→ث) indicate the existence of **interlanguage** phonology, which is a system of interlinguistic phonology that is developing and is located between L1 and L2. Interlanguage phonology indicates that the errors that appear are not random, but systematic because students have built an internal phonological system that is not yet fully compliant with the L2 standard (Collins et al., 2021). Repeated errors in the manner of articulation reflect that students have difficulty distinguishing phonetic features such as hiss, friction, or air pressure so that the substitution pattern becomes consistent. This confirms that inadequate phonetic input and articulatory exercises contribute to the formation of an imperfect alternative phonetic system.

On the other hand, errors in semivowel sounds (e.g. و→ي) show that the problem lies not only in *production*, but in a more fundamental aspect, namely phoneme perception. Based on the Perceptual Assimilation Model (PAM) approach, learners assimilate L2 sounds into the L1 category if they are unable to distinguish acoustic differences between phonemes (Tyler, 2019). In the case of long and semi-Arabic vowels such as ي and و, the similarity of formant values and vowel duration makes it difficult for students to perform proper phoneme categorization without perceptual training. As a result, sounds that are acoustically and articulatically close are easily confused, resulting in the incorporation of supposedly different phoneme categories.

Big errors such as م changing to ه represent the accumulation of all three mechanisms—strong L1 transfer, fossilized interlanguage systems, and improperly formed phoneme perception. In the context of qirā'ah, this error is not only a technical problem, but has an impact on the quality of the makhraj and the change in meaning. Therefore, the findings of the study can be concluded to be in line with the literature on L2 phonological acquisition which views phonetic production as influenced by the interaction between internal factors (cognitive categories, phoneme perception) and external factors (inputs, exercises, teaching methods). These findings imply the importance of minimal pair-based phonetic learning, perceptual exercises, articulatory visualization, and consistent exposure to target phonemes to facilitate the formation of new phonological categories in non-Arabic learners.

Factors Causing Phonetic Errors in Students

The causes of this phonetic error include two main factors, namely external and internal. Internal factors such as:

1. educational background and tribal background. For example, a *cross-linguistic transfer* intervention study conducted by Haddad-Najjar & Abu-Rabia revealed a *strong transfer* in phonological ***awareness*** from Arabic (L1) to foreign language skills (English), confirming the importance of the role of phonology in cross-language learning, and the implication that educational background and phonetic training intensity increase the realization of correct phonemes(Haddad-Najjar & Abu-Rabia, 2024). In addition, Puput and Zainuddin's research in the journal Tsaqofya revealed the addition of sounds such as س⟶صand غ⟶خ in MTs Al-Wasliyah students. This error is caused by the influence of the first language in the form of the Javanese dialect (Nurshafnita & Zainuddin, 2023). Meanwhile, Qoidul Adhzam in a reputable journal (Scopus) entitled *Analysis of Arabic Phonological Errors in Javanese Speakers* shows that students from the Javanese and Sundanese tribes are still carried away by the regional accent when reading Arabic texts. This indicates that

the interference of the mother tongue and local dialect affects the pronunciation of certain letters (A'dzham, Maksum, & Ma'arif, 2024). Dahou's extensive survey of Arabic dialect processing illustrates how dialect variations pose phonetic challenges in language processing and standard learning, so that without pedagogical interventions targeting phonetic components, local dialects tend to reinforce misreading in the context of qirā'ah (Dahou et al., 2025).

2. Low motivation to learn, lack of reading practice. This is in line with Kaltsum's findings in *the Journal Educandumedia* concluding that lack of practice, low motivation, and limited vocabulary mastery are the root of students' phonetic difficulties (Nailah, Afifa mawada, Nissa zahra silmy damanik, & Sakholid nasution, 2025). This is in line with field data that students rarely recite and hesitate in reading. Furthermore, Alrashoudi stated that articulatory feedback, for example through digital technology, is very important to form phonetic perceptions. Without *such feedback*, self-training is not effective enough (Alrashoudi, Al-Khalifa, & Alotaibi, 2025). The lack of reading practice, especially without guidance, will weaken phonetic memory and pronunciation accuracy. System interventions such as *Computer Assisted Language Learning* **(**CALL) with *real-time feedback* can be a solution in helping students practice independently but still receive automatic evaluations.

In addition to internal factors, there are also external factors that also contribute to the phonetic errors *of mahārah qirā'ah*. Family and community environments that only use local dialects or rarely practice standard reading at home reduce the frequency of exposure to the realization of standard phonemes, so that the opportunity for correction by TPA teachers is limited. At the school level, the limitations of teaching methods and media variety, the lack of use of audio aids weaken the corrective feedback that is important for improving the quality and nature of the work. Recent research on deep learning-based qirā'ah error detection by Al Jallad shows that the absence of

good tools and tools for detecting phonetic errors early on has become difficult (Harere & Jallad, 2023)

Therefore, intervention strategies should combine improving the quality of instruction in schools, increasing exposure to standard reading in the home/community environment, and utilizing media/technology that provides phonetic feedback.

Efforts to minimize students' phonetic errors in Arabic language learning

The solutions offered in this study include: 1) Intensive training in the pronunciation of hijaiyah letters. One of the right ways to minimize it is to reteach hijaiyah letters reflexively on the sidelines of learning Arabic. This strategy is in line with the findings by Sabilla in the Sathar Journal showing that *the Phonetic Teaching approach* has succeeded in improving the pronunciation accuracy of junior high school students. Both teachers and students stated that explicit phonetic exercises play an important role in developing Arabic letter articulation, especially at the elementary to middle levels (Sabilla, Damanik, S, & Subianto, 2025). 2) The use of digital media such as educational videos, voice recordings, and Arabic learning applications. The effectiveness of phonetic learning will increase when supported by a variety of learning methods and media, as well as teacher motivation. Research by El Kheir from *QVoice* (an AI-based phonetic learning application) shows that *automatic pronunciation feedback* is able to detect Arabic letter pronunciation errors (hijaiyah) with detection accuracy of up to 95.9%. This proves the combined effectiveness of interactive audio media and auto-feedback in supporting phonetic training (Kheir, Khnaisser, Shammur Absar Chowdhury, Afzal, & Ali, 2023).

In addition to the technological approach, *the ath-thariqah as-shautiyyah (sound method)* method applied by Ruhul Kudus at Makassar State University also resulted in a significant improvement in the mastery of the pronunciation of Arabic letters and short long vowels. This approach emphasizes listening, imitation and repetition *(repetitation drills*) as the basis for the formation of correct reading skills (Kudus, 2025). 2) The habit of reading short texts repeatedly. In addition, it is important to understand that not all Arabic texts must be read according to the rules of tajwīd and

tartīl. Baharudin in *the Hadhari Journal* shows that the rigid application of tajweed in non-religious texts actually causes distortions in pronunciation. They suggest the integration of phonetic approaches in tajweed teaching through *tqlaqqi musyāfahah*, so that students are able to distinguish the context of its use both in reading the Qur'an and reading Arabic texts (Baharudin, Lubis, & Yusoff, 2022).

Finally, institutional support from schools is also a crucial aspect. This is in line with Wedi Samsudi's suggestion in *El-Midra* Journal that providing additional time for reading and Arabic extracurricular activities significantly improves students' phonetic skills and speaking fluency. An audio-visual learning environment can strengthen the formal learning process in the classroom (Samsudi, Hasan Ruzakki, & Andrian Firdaus, 2023).

Conclusion/ الخلاصة

Error analysis in qira'ah learning has important significance in identifying the location of students' difficulties in reading Arabic texts, especially in phonetic aspects. This study systematically grouped phonetic errors into four categories, namely errors in the substance of the material, the nature of letters, semivowels (mad and lin), and serious errors that have the potential to change the meaning of reading. The results of the study show that these errors are not only influenced by students' technical ability in pronouncing letters, but also come from internal factors such as educational background, the influence of regional dialects, low motivation, and lack of practice; as well as external factors in the form of learning environments, teaching methods, and limitations of less varied learning media. These findings confirm that Arabic phonetic mastery is a multidimensional process that is not solely related to the physiological aspects of pronunciation, but is also closely related to the psychological, social, and pedagogical aspects of students. Therefore, a learning strategy that emphasizes intensive phonetic training through systematic drilling, the use of audio-visual media, and the habituation of repetitive pronunciation practices is very important to improve the accuracy of sound production. The implementation of this strategy requires synergy between schools, teachers, and students to create

phonetic learning that is sustainable, contextual, and responsive to the needs of students.

This research makes an empirical contribution to the development of Arabic phonetic learning models in Indonesia, especially for students from non-diniyah educational backgrounds, because mapping error patterns and their causative factors allows teachers to design more appropriate and adaptive interventions. However, this study has limitations due to its limited area coverage and relatively small sample count, so it cannot be generalized widely. Further research is suggested to expand coverage to more diverse education levels and mother tongue backgrounds, as well as examine the relationship between phonetic ability and other language skills such as meaning comprehension (maharah istima') and speaking skills (maharah kalam). Practically, the results of this study suggest the need for Arabic teachers to conduct periodic diagnostic assessments to map students' phonetic error profiles, implement drilling-based structured exercises that focus on the makhraj and the properties of letters that are often mistaken, utilize phonetic digital media to provide consistent input models, and provide direct feedback to prevent repeated reinforcement of errors. Accordingly, more concrete directions for further research need to be focused on testing the effectiveness of digital phonetic media—such as pronunciation apps or interactive modules—in reducing specific errors, conducting comparative experiments between conventional drilling models and blended-learning phonetics, and developing longitudinal studies to assess the sustainability of improved phonetic abilities over a longer learning span. Thus, the findings of this study are expected to be a theoretical and practical foothold for the development of phonetic learning that is more comprehensive, evidence-based, and relevant to the context of Arabic language education in Indonesia.

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