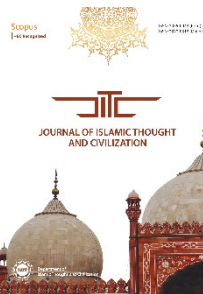


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Scriptural Precision in the Malay World: Reforming the Jawi Vowel System for Qur'anic Integrity Using the *Nuqtah al-I'jām* Method

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Abstract

Jawi has long served as a principal script for transmitting Islamic knowledge and preserving Malay intellectual heritage. Yet in contemporary Malay, especially with the increasing presence of English loanwords, a persistent orthographic weakness has become more apparent: the absence of a dedicated representation for the *é-taling* vowel. In current usage, this vowel is typically rendered with the *ya* (ﻱ) character, which is also used to represent the vowel /i/. When vowel diacritics are omitted, as is common in print and digital contexts, this overlap creates phonetic ambiguity and results in frequent misreadings (e.g., *televisyen* read as *tilivisyen*). Such ambiguity is particularly problematic in Qur'anic literacy and religious instruction, where accurate pronunciation is vital for conveying meaning. This study analysed 70 Malay words containing the *é-taling* sound, selected through a structured review of entries in *Kamus Dewan* (4th ed.). Through qualitative inductive analysis combined with comparative orthographic examination, the study revealed systematic patterns of confusion between the *é-taling* and /i/ vowel sounds in *Jawi* spelling. Drawing on the historical precedent of *Jawi* character expansion using the *Nuqtah al-I'jām* method, the study proposes a new character derived from the *ya* base to represent the *é-taling* vowel distinctly. This reform offers a practical solution to improve spelling precision, reduce mispronunciation, and support the continued relevance of *Jawi* in modern Malay usage and Qur'anic education.

Keywords: *é-taling*, *Jawi* orthography, *Nuqtah al-I'jām*, pronunciation accuracy, vowel representation

Introduction

The embrace of Islam by Malay ancestors was accompanied by the creation of the *Jawi* script, which has been used for nearly a thousand years to preserve the teachings of the Qur'ān, Hadith, and Islamic literature.¹ Originally adopted by the Malays to write their own language, the *Jawi* script sprang from the Arabic script. The evolution of Malay writing spanned several scripts before *Jawi*. In the early first millennium, Malay inscriptions used the Pallava script (of South Indian origin),²

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¹Paolo Coluzzi, "Jawi, an Endangered Orthography in the Malaysian Linguistic Landscape," *International Journal of Multilingualism* 19, no. 4 (2022): 630–46, <https://doi.org/10.1080/14790718.2020.1784178>.

²Pierre-Yves Manguin, "'A Real Seafaring People': Evocations of Sailing in Malay Literature," *Archipel* 103 (2022): 7–32, <https://doi.org/10.4000/archipel.2905>.

which later gave way to an indigenous Rencong script by around the 14th century. By 1303 CE (702 Hijri), the Terengganu Inscription Stone provides the earliest evidence of Malay written in an adapted Arabic script. This 14th-century stone already shows all 29 Arabic letters plus five additional characters suited to Malay sounds, indicating that *Jawi*'s specialized letters were in use from its very inception.³ *Jawi* was first extensively employed following the arrival of Islam and continues to be used today. *Jawi* was not only used for communication but also as a religious medium for Qur'ānic teaching, interpretation (*tafsir*), and the spread of Islamic principles within the Islamic civilizational framework of the Malay world.

Given its foundational role in transmitting Islamic teachings, the *Jawi* script remains deeply intertwined with Qur'ānic literacy in the Malay world. Orthographic innovation in *Jawi*, such as the proposal discussed in this study, not only improves phonetic accuracy for modern Malay usage, but also aids in preserving the correct pronunciation of Qur'ānic terms among native readers. Moreover, guaranteeing uniformity in vowel representation helps to improve the understanding of Qur'ānic passages produced in *Jawi* script, particularly in translation and teaching materials.⁴ *Jawi* continuity as a respectable script for Qur'ānic instruction in the Nusantara area thus hinges in part on addressing its phonetic restrictions. Without such phonological refinement, there is a risk that younger generations may lose not only the linguistic structure of *Jawi* but also its Qur'ānic function and religious significance.

Along with the passage of time and its development, many loanwords have been assimilated into the Malay language. For example, *kereta* from Portuguese (car), *masjid* from Arabic (mosque), *ejen* from English (agent), and words from many other world languages.⁵ This captures the Malay people's open-minded, progressive attitude. The adoption of foreign words into a language is a somewhat widespread phenomenon. For instance, 56% of the vocabulary in the English language comes from Latin and French. Furthermore, roughly 4,000 Spanish words borrowed from Arabic roots span many disciplines like science, architecture, and food.

For the Malay language and the *Jawi* script, the acceptance and assimilation of foreign words into Malay are, of course, carried out through a process of adaptation and orthographic standardization. This is to facilitate pronunciation and understanding for the Malay people.⁶ Therefore, this article will discuss the adjustments that have taken place in the *Jawi* script during the incorporation of foreign loanwords. At the same time, it also presents arguments and ideas supporting the need for new letters in the *Jawi* script. These would make spellings more precise and maintain accurate pronunciation of Malay words written in *Jawi*, particularly those containing the *é-taling* sound.

This improvement is not only pertinent to general vocabulary but also essential for the proper

³Allif Syahputra Bania, and Bachtiar Akob, "Preserving the Jawi Script in Aceh: Assessing Literacy, Cultural Heritage, and Modern Paradigm Challenges," *Studies in English Language and Education* 12, no. 1 (2025): 457–70, <https://doi.org/10.24815/siele.v12i1.36629>.

⁴Sitti Munirah Abdul Razak et al., "Transliteration Engine for Union Catalogue of Malay Manuscripts in Malaysia: E-Jawi Version 3," in *2018 International Conference on Information and Communication Technology for the Muslim World (ICT4M)* (Kuala Lumpur: IEEE, 2018), 58–63, <https://doi.org/10.1109/ICT4M.2018.00020>.

⁵Rozib Sulistiyo et al., "Manuskrip Beraksara Jawi Pada Khazanah Pustaka EAP British Library," *Ulumuddin: Jurnal Ilmu-Ilmu Keislaman* 13, no. 1 (2023): 115–36, <https://doi.org/10.47200/ulumuddin.v13i1.1625>.

⁶Amani Binti Hakim et al., "Jawi Writing as a Tool for Islamization of Knowledge: الكتابة الجاوية: الأداة لإسلامية المعرفة," *Al Hikmah International Journal of Islamic Studies and Human Sciences* 5, no. 3 Special Issue (2022): 116–27, <https://doi.org/10.46722/hikmah.v5i3g>.

articulation of religious and Qur'ānic phrases, including *malaikat*, *akhirat*, and *kitab*, where vowel changes could mislead pronunciation and meaning. Although great efforts are being made to record *Jawi*'s historical and cultural evolution, little is known about how phonetic ambiguity, especially the confusion between *é-taling* and /i/ sounds, affects the reading of religious literature. In the framework of Qur'ānic literacy, where vowel quality directly helps to ensure accurate interpretation, this gap is highly significant.⁷ Although several books examine *Jawi* writing descriptively, few suggest doable fixes for this vowel problem in religious education. Moreover, previous research has not adequately examined how these phonological inconsistencies may disrupt Qur'ānic instruction in formal and informal Islamic learning settings, such as *madrasah*, *pondok*, and *halaqah* systems.

Thus, the aim of this study is threefold: (1) to identify the phonetic limits of current *Jawi* characters in representing the *é-taling* vowel, (2) to introduce a new character using the *Nuqtah al-I'jām* method, a classical Arabic orthographic technique that differentiates letters by modifying the placement and number of dots (*nuqat*) on shared base forms, as an orthographic solution, and (3) to show how this reform improves pronunciation accuracy, supports the understanding of Qur'ānic texts written in *Jawi*, and reinforces the sustainability of *Jawi* for Islamic scholarship in the Malay Archipelago. The project intends to link classical linguistic science with modern digital-era Islamic schooling by matching this orthographic reform with a Qur'ān-centred approach.

To evaluate problems relating to the research gap, careful reading and review of the literature have been conducted. Analysis of past academic publications and writings shows that this field has yet to be fully investigated or addressed in depth; thus, the need to carry out this study is well-founded. This disparity gives scholars a chance to delve further into the topic. It also calls on Islamic academics, linguists, and education policymakers to work together in creating more accurate, inclusive, and spiritually conscious writing systems for the contemporary Malay Muslim population. With *Jawi* used as a symbolic script, these often-descriptive pieces cover elements including its historical formation and evolution, the adoption and origins of its characters, and the relationship between Malay culture and Islam.

Jawi spelling reforms progressed through three significant phases led by Za'ba, Yusoff Zaky, and DBP. Za'ba's reform (1920s–1960s), notably through *Panduan Ejaan Jawi yang Disempurnakan* and other instructional texts, focused on rationalizing spelling rules for clarity and consistency, particularly for native Malay words. His approach minimized Arabic influence and introduced phoneme-based spelling that made *Jawi* more accessible in schools. In the 1960s–1980s, Yusoff Zaky introduced the *Sistem Ejaan Jawi Dian*, which attempted to modernize the script by standardizing the spelling of loanwords and simplifying orthographic elements, such as the use of Arabic-style reduplication marks. Although the Dian system was regionally influential, especially in Terengganu and Kelantan, it lacked nationwide adoption. Building on these prior efforts, DBP institutionalized reforms in the *Pedoman Ejaan Jawi yang Disempurnakan* (1986), formalizing 37 letters, including innovations like dotless *ya* and letters for /v/ and /p/, and aligning *Jawi* with Rumi phonology. DBP's efforts also included dictionary standardization and curriculum integration. However, one unresolved challenge across all three phases is the absence of a dedicated character for the *é-taling* vowel, which continues to cause mispronunciation and limits *Jawi*'s utility in modern vocabulary, especially in Qur'ānic and digital contexts.

In facing the wave of scientific and technological advancement that has spread widely, the current challenges of the *Jawi* script warrant further elaboration. The issue of limited vowel characters in *Jawi* for spelling science and technology loanwords must be examined and refined. The

⁷Haziyah Hussin and Latifah Abdul Majid, "Significance of Malay Qur'anic Commentary for the Malay Muslim Community in Malaysia," *Asian Social Science* 10, no. 16 (2014): 160, <https://doi.org/10.5539/ass.v10n16p160>.

capacity of existing *Jawi* vowel characters to accurately spell and produce correct pronunciation needs thoughtful solutions.⁸ The confusion in pronunciation caused by the lack of vowel letters in spelling must be addressed to ensure the sustainability of the *Jawi* script in future.⁹ In doing so, the Islamic and cultural legacy of *Jawi* will not only be preserved but revitalized for a new generation of learners navigating both religious tradition and linguistic modernization.¹⁰

Therefore, this article is written and developed to examine the continuity of *Jawi* script usage by the Malay people specifically, and the broader Malay world generally, in the era of science and technology. By focusing on the intersection of phonetic reform and Qur'anic education, this study offers an innovative and meaningful contribution to the development of a more accurate, functional, and spiritually grounded *Jawi* orthography.

2. Methodology

A qualitative method was implemented in this study to achieve the outlined research objectives. The primary source of reference was the Fourth Edition of the *Kamus Dewan Bahasa dan Pustaka*, published by Dewan Bahasa dan Pustaka (DBP), Kuala Lumpur. This dictionary was selected due to its authority in standardizing Malay vocabulary, including loanwords commonly used in modern and religious discourse.

Using this dictionary, inductive analysis was conducted by focusing on and collecting entries containing the *é-taling* sound, such as *telefon* (téléfon), *televisyen* (télévisyen), and *eksport* (éksport). A systematic review was conducted across all 26 Roman alphabet letters, from 'A' to 'Z'. Words containing the *é-taling* sound were randomly selected as samples and registered in this study. This sampling approach ensured broad linguistic representation across different semantic fields, including scientific, technical, and religious terms.

A total of 70 words containing the *é-taling* sound were selected as representative samples for this study. These words were drawn from the *Kamus Dewan* (4th ed.) through a systematic review of entries spanning all 26 letters of the Roman alphabet, ensuring broad linguistic coverage. The selected words came from various semantic fields, including science, religion, and modern technology, to capture how the *é-taling* vowel functions in different types of vocabulary. This sample size was chosen to balance coverage and manageability, large enough to reflect diverse contexts but still focused enough to allow detailed qualitative analysis. In orthographic studies, similar approaches have used targeted word lists to ensure representation of key phonological environments.¹¹

In qualitative linguistics, sample adequacy is typically assessed by the concept of thematic

⁸Azam Ghazali et al., "From Aliff to Ya: Exploring the Challenges of Jawi Literacy in Early Learners and How to Cope It," *International Journal of Academic Research in Progressive Education and Development* 14, no. 2 (2025): 825–838, <https://doi.org/10.6007/IJARPED/v14-i2/25396>.

⁹Khazriyati Salehuddin and Nurjanah Mohd Jaafar, "Reformasi Ejaan Jawi untuk Literasi dan Revitalisasi Jawi: Satu Kertas Konsep [Jawi Spelling Reformation to Increase Jawi Literacy and for Its Revitalization: A Conceptual Paper]," *Journal of Language Studies* 24, no. 2 (2024): 120, <https://doi.org/10.17576/gema-2024-2402-07>.

¹⁰Khazriyati Salehuddin, Sharifah Raihan, Syed Jaafar, and Nurjanah Mohd Jaafar, "Mitigating the Cognitive Complexity in Reading the Arabic Script of Malay via Spelling Reformation," paper presented at *Psychological Applications and Trends 2025 (InPACT 2025)*, April 26, 2025, <https://doi.org/10.36315/2025inpact143>.

¹¹Marcus Taft et al., "Automatic Activation of Orthography in Spoken Word Recognition: Pseudohomograph Priming," *Journal of Memory and Language* 58, no. 2 (2008): 366–379, <https://doi.org/10.1016/j.jml.2007.11.002>.

saturation, which refers to the point at which no new patterns emerge from additional data. After analysing 70 words, recurring issues of ambiguity between *é-taling* and /i/ sounds became clearly established, and further examples yielded no significantly different patterns. This indicated that the sample was sufficient to expose the central problem and evaluate proposed solutions. Qualitative research aims for depth over breadth, and a sample size of 70 words is appropriate when it allows for concept saturation and interpretive richness.¹² This sampling decision thus aligns with accepted practice in both linguistic and qualitative traditions.

These sample words were examined and analysed in terms of their spelling and phonetic pronunciation, especially regarding the potential confusion with the vowel sound ‘i’ when written in *Jawi*. This step was crucial in identifying instances where vowel ambiguity could compromise the accurate pronunciation of both modern Malay and Qur’ānic-based terms written in *Jawi*. This listing served to identify and confirm the research problem in a concrete manner. Subsequently, descriptive and comparative analyses were conducted to fulfil the next research objective: to demonstrate the *Nuqtah al-I’jām* method as a proposed solution for creating a new *Jawi* character to represent the *é-taling* sound accurately in writing and pronunciation. The use of the *Nuqtah al-I’jām* method, rooted in classical Qur’ānic orthography, provides a culturally and theologically appropriate foundation for reforming *Jawi* script. This is in line with the historical adaptation and creation of additional *Jawi* characters that represent sounds commonly used by Malay speakers, such as *cha* (چ), *nga* (ڠ), *pa* (ف), *ga* (گ), and *nya* (ن).

These past adaptations support the feasibility of further character innovation within the *Jawi* system, particularly when it serves both linguistic and religious clarity. To further demonstrate the feasibility of the proposed character, Table 1 presents a comparative overview of *Jawi* letters that have historically been introduced through the *Nuqtah al-I’jām* method. As a result, this study presents a strong and evidence-based proposal to address the research problem: the creation of a new *Jawi* character to represent the *é-taling* vowel sound. This proposal not only addresses phonetic limitations but also contributes to preserving the scriptural accuracy of Qur’ānic pronunciation among *Jawi* users.

Table 1. Comparative Overview of *Nuqtah al-I’jām* Applications in *Jawi* Script

No.	Jawi Character	Base Arabic Letter	Dot Modification	Example in Use	Sound Represented	Linguistic Function	Historical Context
1	ڤ	ف	Three dots above	<i>pensil</i> (ڤنسيل)	/p/	Non-Arabic consonant for /p/	Formalized during colonial administration
2	گ	ك	One dot above	<i>garaj</i> (گراج)	/g/	Voiced velar stop	Inspired by Persian usage
3	ڠ	ن	Three dots above	<i>nyamuk</i> (ڠاموق)	/ŋ/ (palatal nasal)	Native Malay nasal	Developed for native phonology

¹²Elizabeth J. Tisdell et al., *Qualitative Research: A Guide to Design and Implementation* (Hoboken, NJ: John Wiley & Sons, 2025).

No	Jawi Character	Base Arabic Letter	Dot Modification	Example in Use	Sound Represented	Linguistic Function	Historical Context
4	غ	ع	Three dot above left	<i>angin</i> (انڠين)	/ŋ/ (velar nasal)	Malay-specific consonant	Indigenous innovation in early Malay texts
5	و	و	One dot above	<i>video</i> (ويديو)	/v/	Representation of /v/ in loanwords	Introduced by Dewan Bahasa in 1983
6	ى	ي	No dots (dotless <i>ya</i>)	<i>nasionali sme</i> (ناسيوناليسمى)	/i/ (final <i>ismê</i>)	Suffix form for foreign abstract nouns	Orthographic variant for ending "-isme" words
7	چ	ج	Three dots in the middle	<i>cukai</i> (چوڪي)	/tʃ/ (as in chair)	Native sound	Used widely in Malay, borrowed from Urdu
8	Proposed: ڤ	ي	Two dots vertical	<i>réka, televisyen</i>	/e/ (<i>é-taling</i>)	Distinguishes /é/ from /i/	Proposed extension following Jawi tradition

3. Analysis and Discussion

3.1 Contemporary Challenges of *Jawi* Script

With the passage of time and the expanding, increasingly diverse needs of the Malay language, its vocabulary has seen a significant influx of borrowed words from English. The assimilation of such words has made it more challenging to render them accurately in *Jawi* script. This difficulty arises from the fact that English contains several letters and corresponding sounds absent from both the Malay phonetic system and the traditional *Jawi* script. In the context of Islamic education, this challenge becomes more critical, as loanwords are frequently used in contemporary Qur'anic instruction, Islamic studies curricula, and translated religious literature. Ensuring accurate vowel representation is thus not only a linguistic concern but also a pedagogical and theological one.¹³

More than 300 English words have been registered in the Fourth Edition of *Kamus Dewan*, published by Dewan Bahasa dan Pustaka.¹⁴ Examples include *intervensi* (intervention), *eksais* (excise), *universiti* (university), and *eksplorasi* (exploration). The increasing inclusion of these terms calls for the development of new *Jawi* letters to correspond with these foreign phonetic elements. Without such developments, the *Jawi* script risks becoming insufficient for representing the full semantic and phonological range of modern Malay, including terminologies in Islamic sciences,

¹³Anaam Mutlak, and Ammar Kareem, "Phonological Analysis of Vowel Lengthening and Shortening in Qur'anic Readings: A Study of Al-Hakimi's Tafsir," *Dragoman Journal of Translation Studies*, no. 22 (2025); 178–191, <https://doi.org/10.63132/ati.2025.phonol.7585>

¹⁴Salehuddin and Jaafar, "Reformasi Ejaan Jawi Untuk Literasi Dan Revitalisasi Jawi: Satu Kertas Konsep [Jawi Spelling Reformation to Increase Jawi-Literacy and for Its Revitalization: A Conceptual Paper].

philosophy, and law.

For instance, one of the notable phonetic challenges is the representation of the /v/ sound, which lacks a corresponding letter in traditional *Jawi*. However, there are 233 words containing the /v/ sound that have been integrated into the Malay lexicon. As a solution, the letter *ḡ* has been incorporated into the *Jawi* alphabet to represent the /v/ sound, enabling English loanwords to be written more accurately in *Jawi*.¹⁵ Examples include *video*, *komvokesyen* (convocation), and *vitamin*. This successful introduction sets a precedent for further orthographic innovation, including a new character for the *é-taling* vowel, which suffers from similar representational inadequacy.

Furthermore, the Malay language exhibits what is referred to as the “Divergence Phenomenon,” in which the wide range of vowel sounds in Malay is only represented by a limited set of vowel indicators in Arabic and traditional *Jawi*, namely *alif* (ا), *waw* (و), and *ya* (ي). This limitation exists because the vowel inventory in Malay is significantly broader than that of Arabic phonology.¹⁶ This divergence is particularly problematic when teaching religious terms, reciting Qur’ānic-derived vocabulary, or composing scholarly Islamic texts in *Jawi*. The lack of phonological precision could lead to unintentional mispronunciations or semantic drift in religious contexts.

There are five vowel letters in the Romanized Malay script: *a*, *e*, *i*, *o*, and *u*. However, it is widely known that *Jawi* script lacks letters to represent specific vowel sounds such as *é-taling* (as in *téléfon*) and *e-pepet*, as well as the *o* sound. This is because letters derived from Arabic are primarily consonantal in nature, with vowel sounds indicated by diacritics, *fathah* (َ), *dhommah* (ِ), and *kasrah* (ِ).¹⁷ In practice, these diacritics are often omitted in printed and digital materials, resulting in greater reliance on readers’ prior knowledge and further complicating accurate reading of religious texts.

In this regard, the letter *ya* (ي) is used to represent four different vowel sounds in Romanized Malay: the /i/ sound in *jitu* (جيتو), the *é-taling* sound in *helikopter* (هيليكوfter), the consonantal *y* sound in *Yunus* (يونوس), and the *ai* diphthong in *buai* (بواي). This limitation in vowel representation often leads to pronunciation errors, as a single letter (*ya*) is used for multiple, phonetically distinct sounds. This inadequacy of vowel representation and the inconsistency of its usage in *Jawi* script are often cited as key weaknesses of the system.¹⁸ From a Qur’ānic literacy perspective, this inconsistency can also affect learners’ ability to differentiate key Arabic-derived terms that share similar root structures but differ in pronunciation and meaning.¹⁹

This study focuses on identifying issues related to pronunciation and reading accuracy for words containing the *é-taling* sound, which are frequently confused with the *i* sound. Most pronunciation errors are associated with terms derived from science and technology, which often feature *é-taling*,

¹⁵Coluzzi, “Jawi, an Endangered Orthography in the Malaysian Linguistic Landscape,” 630–46.

¹⁶Makmur Haji Harun et al., “Jawi Writing in Malay Archipelago Manuscript: A General Overview,” *MATEC Web of Conferences* 150 (2018): 05054, <https://doi.org/10.1051/mateconf/201815005054>

¹⁷Mona A. Azim, Wedad Hussein, and Nagwa L. Badr, “A Hierarchical Approach for Arabic Phonemes Classification,” in *2021 Tenth International Conference on Intelligent Computing and Information Systems (ICICIS)* (Cairo: IEEE, 2021), 99–104, <https://doi.org/10.1109/ICICIS52592.2021.9694108>

¹⁸Mulaika Hijjas, “Is Jawi Islamic?” in *Malay-Indonesian Islamic Studies*, ed. Majid Daneshgar and Ervan Nurtawab (Leiden: Brill, 2022), 269–293, https://doi.org/10.1163/9789004529397_011

¹⁹Hasnurol Hashim, Kaseh Abu Bakar, and Maheram Ahmad, “Kesahan Pengukuran dan Kebolehppercayaan Instrumen Ujian Struktur Dalaman Kata Imbuan (USDAi) bagi Penguasaan Morfologi Arab [Measurement Validity and Reliability of the Internal Structure of the Derivational Word Instrument for the Mastery of Arabic Morphology],” *Issues in Language Studies* 11, no. 1 (2022): 34–54, <https://doi.org/10.33736/ils.3963.2022>

e-pepet, and *o* vowel sounds. In the current *Jawi* system, the *ya* (ﻱ) character is generally used to represent the *e* sound. However, since *ya* fundamentally represents the *i* sound, this leads to significant confusion when spelling *e* in *Jawi*. The overlap between secular and religious lexicons, particularly in Islamic discourse involving scientific and philosophical language, makes the distinction between /i/ and /é/ vowels a pressing issue. Such mis-readings are not merely technical flaws; they may impact the clarity of meaning in Qur'ānic commentary, legal interpretation (*fiqh*), and theological expression when written in *Jawi*.

For example, the word *mereka* may be misread as *merika* because the *é-taling* vowel is represented by *ya* (ﻱ) following *ra* (ﺭ), resulting in the syllable being pronounced *ri* instead of *ré*. This issue will be discussed in further detail in the next section.

3.2 Clarifying Spellings Involving the *É-Taling* Sound

There has long been an assumption that pronunciation errors occur because users cannot distinguish between spellings involving *e-pepet* and *é-taling*.²⁰ However, the researcher's analysis found that the issue of *e-pepet* versus *é-taling* has, in fact, already been resolved through established *Jawi* spelling formulas. According to *Jawi* orthographic conventions, *e-pepet* vowels are not written using the *ya* (ﻱ) letter. For example, common words such as *beku*, *bekas*, *emak*, *emas*, and *enam* are written without *ya*, clearly distinguishing them from *é-taling* representations that use *ya* to signify the /e/ vowel.²¹ This suggests that the problem is not one of general vowel confusion, but rather a specific structural inadequacy in the *Jawi* writing system, namely, the lack of a dedicated symbol to distinguish *é-taling* from the /i/ sound when both are written using *ya*. On the other hand, *é-taling* must be written with *ya* (ﻱ) in *Jawi* spelling, as seen in words like *beca*, *feri*, *esok*, *goreng*, and *ekor*.²² While this rule addresses orthographic regularity, it does not resolve the phonetic overlap between *é-taling* and *i* sounds, especially in the absence of vowel diacritics in contemporary print and digital usage.

The real problem uncovered in this study is related to the pronunciation and reading of the *é-taling* sound, which continues to be confused with the *i* sound, particularly when both vowel sounds appear within the same word or even as a single vowel. For instance, the word *helikopter* may be pronounced as *hilikopter* because *ya* (ﻱ) is used to represent both vowels within the same word. Other examples include:

- *spesifik* potentially misread as *spisifik*
- *mekanisme* as *mikanisme*
- *eksperimen* as *ikspirimen*
- *estimasi* as *istimasi* in *Jawi* script.

²⁰Chong Oi Chin, and Vijayaletchumy A/P Subramaniam, “Medan Maklumat Dalam Kamus Ekabahasa Melayu,” *Procedia - Social and Behavioral Sciences* 134 (May 2014): 249–258, <https://doi.org/10.1016/j.sbspro.2014.04.246>

²¹Che Wan Shamsul Bahri Che Wan Ahmad et al., “Handling Ambiguity in Jawi–Roman Machine Transliteration Using Multinomial Naive Bayes Classification (Menangani Ketaksaaan Dalam Transliterasi Mesin Jawi - Rumi Menggunakan Pengelasan Naive Bayes Multinomial (NBM)),” *Malaysian Journal of Information and Communication Technology (MyJICT)*, June 29, 2022, 42–53, <https://doi.org/10.53840/myjict7-1-8>

²²Ahmad Fahmi Ramli, “Perception of Non-Malay Malaysians Towards the Jawi Script as a National Heritage,” *Issues in Language Studies* 10, no. 1 (2021): 172–182, <https://doi.org/10.33736/ils.2643.2021>

This confusion reveals a significant weakness in the current *Jawi* orthographic system and clearly requires a solution. Left unresolved, this weakness threatens to erode the pedagogical and communicative reliability of *Jawi*, particularly in Islamic education, where accurate pronunciation and comprehension of terms are essential.

Table 2. Potential Mispronunciation When Both *É-Taling* and /I/ Are Represented by *Ya* (ي)

Word	<i>Jawi</i> Spelling (DBP, 1989)	Potential Mispronunciation
Helikopter	هيليكوپتر	Hilikopter
Spesifik	سفييفيق	Spisifik
Mekanisme	ميكانيسي	Mikanisme
Eksperimen	ايكسفير يمين	Ikspirimen
Estimasi	ايسيتماسي	Istimasi

In addition, a noteworthy pattern was observed. The confusion between *é-taling* and *i* sounds also occurs in words that contain *é-taling* as a single vowel, not just when paired with *i* in the same word. This was confirmed through the researcher's review of words across all 26 letters of the Roman alphabet, from 'A' to 'Z'. This reveals the systemic nature of the problem and suggests that the solution must involve script-level reform, not mere user training or dictionary guidance.

A list of words containing *é-taling* was randomly selected and registered in the study. These included a wide range of vocabulary terms from general usage, borrowed terminology, and specialized fields such as science and technology, medicine, computing, and education, that contain the *é-taling* sound and are susceptible to being confused with *i* when written in *Jawi*. Significantly, many of these terms also appear in Islamic academic literature, public sermons, and textbook translations, making accurate rendering in *Jawi* not only a linguistic concern but a religious and educational one.

Table 3. Vocabulary Containing the *É-Taling* Sound by Roman Alphabet Order

No.	Letter	Sample Vocabulary	No.	Letter	Sample Vocabulary
1	A	akses, atmosfera, aeronautik	15	O	oksigen, objek, obses
2	B	beca, beg, bebel	16	P	pensil, pen, premis
3	C	ceti, cendekiawan	17	Q	
4	D	demografi, denggi	18	R	resipi, revolusi, refleksi
5	E	ejen, ekzos, episod, eksperimen, estimasi	19	S	spesifik, spektrum, seks
6	F	feri, festival, feng shui	20	T	tempe, teks, telekomunikasi
7	G	geologi, geometri, geografi	21	U	ulser, uretra, unisel

No.	Letter	Sample Vocabulary	No.	Letter	Sample Vocabulary
8	H	helikopter, hidrogen, helium	22	V	veteran, ventilasi, verifikasi
9	I	internet, integriti, imej	23	W	wesak, walet
10	J	jeti, juruteknik, jengkel	24	X	xenon, xilem
11	K	kalendar, keju, kerepek	25	Y	yen
12	L	Lesen, lestari, lantera	26	Z	zen, zimogen
13	M	moden, majistret, mekanikal, mekanisme			
14	N	nitrogen, nutrient, negatif			

This listing reveals several important findings. First, each Roman letter (except ‘Q’) includes at least one word that contains the *é-taling* sound. Second, there is a high potential for confusion between *é-taling* and *i* sounds when such words are rendered in *Jawi* script. These observations indicate a clear gap in the *Jawi* system: the absence of a dedicated letter to represent *é-taling* contributes to imprecise spelling and inaccurate pronunciation. Therefore, this study strongly supports the timely creation of a new *Jawi* character to represent this missing vowel sound. If unaddressed, issues of sound-symbol correspondence and accurate spelling in *Jawi* will become increasingly apparent. Moreover, implementing a distinct character for *é-taling* would restore phonological clarity to *Jawi*, ensuring its continued functionality in both secular and religious contexts, including Qur’ānic teaching, tafsir writing, and religious pedagogy.

3.3 Nuqtah al-I’jām Method

Historically, the Malay community has employed various methods to preserve the *Jawi* script as a cultural and religious heritage, ensuring its continued relevance in tandem with the evolution of language and expansion of vocabulary. These efforts can be broadly classified into two categories: (i) the revision of spelling systems, and (ii) the creation of new characters. Both approaches reflect the dynamism of the *Jawi* script and its role in facilitating both civil and sacred knowledge transmission, particularly through Qur’ānic translations and Islamic scholarship.

Jawi underwent three major orthographic reform phases in the last century. The initial phase, spearheaded by Zainal Abidin Ahmad (Za’ba) in the late 1920s through the 1960s, introduced a systematic spelling scheme now known as Za’ba’s *Jawi* Spelling Guide.²³ The second phase in the 1960s–1980s, led by Yusof Zaki under the Sistem *Jawi* Dian project, further refined the rules in line

²³Z. A. Za’ba, *Malay Spelling List (Jawi–Romanized) (Daftar Ejaan Melayu (Jawi-Rumi))* (Dewan Bahasa dan Pustaka., 1949).

with post-colonial education needs.²⁴ The third phase began in the 1980s when Dewan Bahasa dan Pustaka (DBP) launched the Sistem *Jawi* DBP, the official standardized orthography still in effect today.²⁵ However, the challenge of vowel representation, especially for *é-taling*, remains unresolved. The lack of a distinct symbol for this vowel persists as a structural gap in the otherwise improved system.

The Terengganu Inscription Stone was rediscovered by researchers in the early 20th century. Its inscriptions demonstrated to modern scholars that by the 14th century, Malay scribes had already innovated extra letters for sounds not covered by Arabic script.²⁶ This historical precedent strongly influenced 20th-century *Jawi* researchers' confidence in extending the script. The *Jawi* script on the Terengganu Inscription Stone included all 29 Arabic letters, with five additional characters: *cha* (چ), *nga* (ڠ), *pa* (پ), *ga* (گ), and *nya* (ڤ). These additions can be classified into two types: (1) consonantal letters representing Romanized Malay sounds, and (2) phonetic adaptations reflecting actual Malay pronunciation. Though inspired by Arabic, these letters were influenced by Persian and Hindi scripts.²⁷ This early adaptation demonstrates that the development of new characters in *Jawi* has always been driven by phonological need rather than orthographic rigidity. The practice of expanding the *Jawi* alphabet through foreign and regional linguistic models also reflects the openness of Islamic Malay scholarship to cross-cultural engagement.

During Za'ba's reform period (1920s–1960s), foreign loanwords containing the /v/ sound were replaced with the /b/ sound. For example, *video* was spelt and pronounced as *bideo*, *vaksin* as *baksin*, and *verandah* as *berandah*. To address the evolving needs of Malay phonology, the *Jawi* alphabet was later expanded. In 1983, Dewan Bahasa dan Pustaka officially introduced the letter *va* (ڤ) to represent the Roman letter 'V', acknowledging the growing number of English loanwords containing this sound.²⁸ This official endorsement by a national linguistic authority validates the practice of orthographic innovation using dot-based modification. Additionally, the dotless *ya* (ع) was adopted for words ending in “-isme” (e.g., *nasionalisme*, *patriotisme*, *sosialisme*, *pluralisme*) during the DBP orthographic standardization phase. This decision was based on practical phonetic clarity, paralleling the rationale for a new *é-taling* character today.

Academically, new *Jawi* characters can be created using *Nuqtah al-I'jām*, a well-established method within the science of Qur'ānic orthography. Rooted in the standardization of the *Mushaf Uthmānī*, this approach distinguishes Arabic letters using specific dot placements.²⁹ For example, the letters *ba* (ب), *ta* (ت), and *tha* (ث) share the same structural form but differ in dot numbers and

²⁴Yusof Zaki Haji Yaacob, “Sistem Ejaan Jawi Dian,” in *Majalah Dian* (Dian Press, 1973).

²⁵Dewan Bahasa dan Pustaka, *Refined Jawi Spelling Guide (Pedoman Ejaan Jawi Yang Disempurnakan)* (Dewan Bahasa dan Pustaka., 1993).

²⁶Wan Ahmad Fauzi Wan Husain et al., “The Role of the Religious Scholars of Faqih Ali Dato' Maharaja's Descent in Upholding Sharia Implementation in Terengganu,” *Malaysian Journal of Syariah and Law* 12, no. 1 (2021): 216–27, <https://doi.org/10.33102/mjssl.vol12no1.674>

²⁷Ahmad Hidayat Buang, Mohd Zaidi Daud, and Mohd Hafiz Jamaludin, “On the Question of *Kitab Jawi's* Originality: Analysis of al-Fatani's *Nahj al-Rāghibīn* on the Essentials of Sale Contract,” *Jurnal Akidah & Pemikiran Islam* 24, no. 1 (2023): 10, <https://doi.org/10.22452/afkar.vol25no1.1>.

²⁸Noorazlin Abu Bakar et al., “Arabic Loanwords in Kamus Dewan Perdana: Questions of Etymology, Word Class and Definition,” *Jurnal Arbitrer* 11, no. 3 (2024): 314–33, <https://doi.org/10.25077/ar.11.3.314-333.2024>

²⁹Nāṣir Al-Dīn Abū Khaḍīr, “*Al-Rasm al-'Uthmānī*: Towards Correct Pronunciation and the Preclusion of Ambiguity,” *Journal of Qur'anic Studies* 13, no. 2 (2011): 201–171, <https://doi.org/10.3366/jqs.2011.0029>

positions: one dot (ب), two dots (ت), and three dots (ث), respectively.³⁰ This highly systematic approach, combining morphology with phonetic precision, was used by Qur’ānic scholars to ensure clarity in divine revelation. It forms a legitimate basis for extending *Jawi* in ways that do not conflict with Islamic orthographic principles. This same method has been used innovatively in the creation of the *va* (ڤ) character, formed by placing a dot on the base letter *waw* (و). Likewise, *pa* (ڤا) was adapted from *fa* (ڤا), and *ga* (ڤا) was modified from *kaf* (ك). These precedents confirm that dot-based derivation is not a novelty, but a long-standing orthographic tool deeply embedded in *Jawi*’s development.

To resolve the confusion between *é-taling* and */i/*sounds, especially when both occur within the same word or are phonetically similar, the study proposes a new letter derived from the base *ya* (ي). The existing *ya* would continue to represent the *i* vowel (as in *ikan*), while a new *ya with double dots* (ڤ) would represent the *é-taling* vowel (as in *ekor*).³¹ This reform aligns with historical character creation methods and addresses a long-standing phonetic ambiguity that compromises both secular and Qur’ānic readability. Malay *Jawi* scholar named Hamdan further noted that the late Za’ba had once proposed a similar form, *ya with twin dots* (ڤ), to represent the *é-taling* sound. However, at that time, the issue was not deemed urgent, as pronunciation accuracy had not yet become a major concern. In today’s context, however, with hundreds of English-derived words entering the Malay language, particularly in science, technology, and religious education, the orthographic system must evolve to preserve pronunciation precision and scriptural fidelity. This is demonstrated in Table 4.

Table 4. Proposed *Jawi* Characters for Representing É-Taling and I Vowel Sounds

No.	Word (Rumi)	<i>Jawi</i> Spelling (DBP, 1989)	Potential Mispronunciation
1	helikopter	هيليكوڤتڤر	hilikopter
2	spesifik	سڤيسيفيڤ	spisifik
3	mekanisme	ميكانيسمي	mikanisme
4	eksperimen	اڤكسڤيريمين	ikspirimen
5	estimasi	اڤستيماسي	istimasi
6	televisyen	تيليفيسيين	tilivisyen
7	elektronik	اڤليكترونيڤ	iliktronik
8	efisien	اڤفيسيين	ifisien
9	eksekutif	اڤكسيكوتيف	iksikutif
10	estetika	اڤيستيتيكا	istitika
11	epidemiologi	اڤيڤيڤيميولوجي	ipidimiologi
12	strategi	س٤تراتيڤي	sitratiji
13	universiti	يونيڤرسيتي	yunifirsiti
14	kategori	كاتيڤوري	katigori
15	teknologi	تيتكنولوجي	tiknologi

3.4 Challenges and Future Directions

Several challenges are anticipated in promoting the usage of this newly proposed letter. The first lies in introducing and gaining acceptance of this character among *Jawi* experts and long-time enthusiasts who are accustomed to the traditional character set. Resistance may arise from concerns over linguistic purity, cultural preservation, or compatibility with classical *Jawi* manuscripts and

³⁰Noha Mohamed, “The Effect of Dots on Arabic Visual Word Recognition: A Psycholinguistic Perspective,” *The Egyptian Journal of Language Engineering* 11, no. 2 (2024): 46–62, <https://doi.org/10.21608/ejle.2024.386284>

³¹Annabel Teh Gallop et al., “A *Jawi* Sourcebook for the Study of Malay Palaeography and Orthography,” *Indonesia and the Malay World* 43, no. 125 (2015): 13–171, <https://doi.org/10.1080/13639811.2015.1008253>

Qur'ānic texts. Hence, scholarly dialogue and fatwa-based consultation may be necessary to ensure the innovation aligns with Islamic orthographic principles. The second challenge involves proving the effectiveness of the new character in addressing the issues of accurate spelling and pronunciation. Pilot testing through educational materials, Qur'ānic translations, and textbook applications will be crucial to assess usability in both secular and religious settings. Whether this new letter will resolve current challenges or give rise to unforeseen issues must be evaluated through further linguistic studies. These studies should involve not only linguistic scholars but also religious educators, calligraphers, and digital typographers to ensure holistic integration across platforms, from schools to Qur'ānic institutions, and from manuscripts to mobile apps. Ultimately, it is hoped that the proposed character will be embraced, adopted, and applied by the Malay community and *Jawi* script advocates. Its long-term use should be institutionalized and prevented from fading into obscurity like several previously abandoned *Jawi* innovations. Institutional support from Dewan Bahasa dan Pustaka (DBP), Islamic universities, and regional Qur'ānic bodies will be instrumental in ensuring that this orthographic reform endures, evolves, and enriches both modern Malay literacy and classical Islamic learning.

4. Conclusion

The *Jawi* script must evolve in parallel with the development of the Malay language. If this progression is not synchronized, *Jawi* will appear inadequate and may eventually be abandoned for failing to meet contemporary linguistic demands. This is particularly pressing in the digital era, where *Jawi* must function seamlessly across print, education, and screen-based media. The initiative to introduce new letters into the *Jawi* script represents a critical step towards ensuring that *Jawi* continues to grow alongside the modern Malay language. It also affirms *Jawi*'s potential as a living script capable of supporting both secular modernization and religious continuity, especially in Qur'ānic and Islamic studies.

This is a necessary effort to demonstrate that the *Jawi* script can be structured, precise, and accurate in representing pronunciation, free from ambiguity or confusion. This study specifically focused on Malay words containing the *é-taling* vowel sound, which are highly susceptible to being mispronounced as the *i* sound when rendered in *Jawi*. This reform not only enhances orthographic clarity but also supports better reading of Qur'ānic-derived terminology and instructional religious texts, where vowel accuracy is central to meaning.

As foundational evidence, the study examined 70 selected words with *é-taling* sounds across all 26 Roman letters (A to Z). The findings confirm that the time has come to develop and implement a new character to represent the *é-taling* vowel in *Jawi*. This is crucial, as the absence of such a character lead to frequent mispronunciation among native *Jawi* readers. Mispronunciations, especially when occurring in Qur'ānic and theological contexts, risk undermining both linguistic integrity and religious understanding.

The proposed solution, developed through the *Nuqtah al-I'jām* method, offers a viable and systematic approach to this orthographic challenge. It ensures that the *Jawi* script remains relevant, open, dynamic, and progressive, preserving its position as a valuable cultural and linguistic heritage of the Malay people for generations to come. To succeed, this reform should be supported by collaborative engagement among linguistic scholars, Islamic educators, type designers, and national institutions such as Dewan Bahasa dan Pustaka, JAKIM, and higher learning institutions across the Nusantara region.

Authors Contribution

Mohd Hisyam Abdul Rahim: conceptualization, methodology, data curation, formal analysis, writing – original draft. **Muhamad Syazwan Faid:** supervision, methodology, writing – review & editing. **Mohd Yakub Zulkifli Mohd Yusoff:** theoretical framing, critical revisions

Conflict of Interest

The authors of the manuscript have no financial or non-financial conflict of interest in the subject matter or materials discussed in this manuscript.

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