

Embodied Arabic Orthography through *Rasm ‘Uthmānī* Copybook Practice: A Mixed-Methods Study in Malaysia

Yusuf Arisandi¹, M. Yusuf Harun², Aufa Hanin Salsabil³

Universitas Islam Internasional Darullughah Wadda’wah, Indonesia^{1,2},
International Islamic University Malaysia, Malaysia³,

Yusufarisandi@uiidalwa.ac.id¹, myusufharun@student.uiidalwa.ac.id²,
aufa.hanin@live.iium.edu.my³

Cite this article:

Arisandi, Yusuf., Harun, M. Yusuf., & Salsabil, Aufa Hanin. (2026). Embodied Arabic Orthography through Rasm ‘Uthmānī Copybook Practice: A Mixed-Methods Study in Malaysia. *Arabiyatuna: Jurnal Bahasa Arab*, 10(1), 317-340. doi: 10.29240/jba.v10i1.16109

Received: 11-01-2026

Revised: 15-04-2026

Accepted: 15-05-2026

Abstract

Arabic writing skills (*mahārah kitābah*) remain a persistent challenge in Islamic educational contexts, where instruction often emphasizes memorization and oral recitation while providing limited structured support for handwriting development. Although learners are frequently exposed to Qur’anic texts, such exposure does not automatically lead to accurate and confident Arabic writing. This study examines the implementation and pedagogical impact of Rasm ‘Uthmānī Qur’anic copybook practice on Arabic writing development among beginner and lower-intermediate learners in Negeri Sembilan, Malaysia. Employing a qualitative-dominant convergent mixed-methods design, the study involved 32 students who participated in a six-week copybook-based writing intervention. Data were collected through classroom observations, semi-structured interviews, analysis of students’ written artifacts, and pre- and post-writing performance assessments. Qualitative data were analyzed thematically through coding, categorization, and interpretive synthesis, while quantitative data were analyzed using descriptive statistics and a paired-samples *t*-test. The findings indicate that copybook-based practice improved orthographic accuracy, letter formation, baseline alignment, and writing consistency, while also reducing writing anxiety and enhancing learner confidence. The faint-

Copyright © 2026 author(s)

This work is licensed under a Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International License

script tracing format served as visual–motor scaffolding, supporting psychomotor learning, gradual automatization, and affective readiness for writing. The study concludes that Rasm ‘Uthmānī Qur’anic copybooks can serve as a culturally authentic pedagogical medium for integrating Qur’anic literacy with Arabic writing instruction and for developing *mahārah kitābah* in Islamic educational settings.

Keywords: Arabic writing skills; Rasm ‘Uthmānī; Qur’anic copybook; psychomotor learning; Islamic education.

Introduction

Arabic writing skills (*mahārah kitābah*) remain a persistent challenge in many Islamic educational institutions,¹ particularly at beginner and lower-intermediate levels. Although students are regularly exposed to Arabic through Qur’anic recitation and religious instruction, this exposure does not automatically translate into accurate written production.² In recent years, Arabic language education in Malaysia has experienced renewed institutional momentum, particularly in states such as Kedah,³ Negeri Sembilan, Kelantan, and Selangor, where Islamic schools and *Tahfiz* institutions increasingly integrate structured Arabic programs alongside Qur’anic studies.⁴ The expansion of Arabic enrichment classes, language camps, and curriculum alignment initiatives reflects a growing awareness of the importance of Arabic proficiency beyond ritual literacy.⁵ Previous studies indicate that culturally authentic Arabic–Islamic learning environments can strengthen learners’ engagement, motivation, and

¹ Wira Nama Wira Bangsa, Ahmad Azkia Salam, and Nur Aunie Batrisya, ‘Introduction to Arabic Dictation (Imlā’): A Foundational Guide to Writing Accuracy’, *Al-Muhawaroh: Jurnal Pendidikan Bahasa Arab* 1, no. 2 (August 2025): 59–69, <https://doi.org/10.38073/almuhawaroh.v2i1.3503>; Noza Aflesia, Kasmantoni, and Yunika Febri Yanti, ‘Writing Errors: A Study of Students Linguistic Errors in Insy Muwajjah Learning,’ *An Nabighob* 26, no. 1 (June 14, 2024): 79–96, <https://doi.org/10.32332/ANNABIGHOH.V26I1.79-96>.

² Lina Marlina, ‘Phonological Errors in Reading Tawasil among Cirangrang Society, Bandung District’, *Arabiyatuna: Jurnal Bahasa Arab* 5, no. 2 (October 2021): 235, <https://doi.org/10.29240/jba.v5i2.2951>.

³ Nur Hanifansyah and Menik Mahmudah, ‘Enhancing Arabic Vocabulary Mastery Through Communicative Strategies: Evidence from Malaysia’, *Al-Ta’rib: Jurnal Ilmiah Program Studi Pendidikan Bahasa Arab IAIN Palangka Raya* 12, no. 2 (December 2024): 263–78, <https://doi.org/10.23971/altarib.v12i2.9082>.

⁴ Abdul Rahim. A, Aminurraasyid Y, and Mohd Farihal O, ‘Student Quality Evaluation amongst Tahfiz Science Schools in Malaysia’, *The Journal of Social Sciences Research*, no. SPI6 (December 2018): 319–24, <https://doi.org/10.32861/jssr.spi6.319.324>.

⁵ Ahmad Tarmizi, Faisol Mahmud Adam Ibrahim, and R. Taufiqurrochman, ‘Tathwir Mawad Al-Ta’bir al-Tahriry ‘Ala Dhuī Maharat al-Tafkir al-Úlya Li Tarqiyah Kitabah al-Maqalah Li Thullabah Qism Ta’Lim al-Lughah al-Árabiyyah’, *Arabiyatuna : Jurnal Bahasa Arab* 6, no. 1 (April 2022): 25, <https://doi.org/10.29240/jba.v6i1.3242>.

confidence in Arabic learning.⁶ At the same time, affective support is needed to reduce anxiety and encourage learners' willingness to produce Arabic in written form.⁷ Therefore, this study is important because it addresses the gap between students' regular exposure to Qur'anic Arabic and their limited ability to reproduce Arabic script accurately and confidently. Rasm 'Uthmānī was selected because it represents the Qur'anic script most familiar to learners in Islamic educational contexts and provides a culturally authentic medium for developing Arabic handwriting through guided visual–motor practice. Classroom observations in Malaysian Islamic schools, especially in Negeri Sembilan, reveal recurring difficulties in letter formation, baseline alignment, and orthographic consistency. Instructional practices frequently prioritize memorization, recitation, and rule explanation, while structured motor-based handwriting training receives comparatively limited attention. As a result, students often demonstrate receptive familiarity with the Qur'anic script but struggle to reproduce standardized Arabic orthography confidently and accurately in writing. This discrepancy highlights a pedagogical gap between Qur'anic literacy and functional handwriting proficiency. Within Islamic educational contexts, the development of accurate Arabic handwriting continues to present significant pedagogical difficulties, particularly at the beginner and lower-intermediate levels⁸. Despite prolonged exposure to Arabic through Qur'anic recitation and religious instruction, many students struggle to produce accurate written forms, especially in terms of letter formation,⁹ orthographic consistency, and adherence to standard script conventions. This challenge is frequently attributed to instructional practices that prioritize memorization and oral repetition while providing limited opportunities for structured, motor-based writing practice that supports psychomotor development and visual–motor coordination.¹⁰

In Arabic language pedagogy, writing (*mahārah kitābah*) is not merely a linguistic or cognitive activity, but an embodied skill that develops through the

⁶ Abdullah Mukhasibi and Iqmal Wahyudi, 'Immersive Arabic Islamic Environment and Student Engagement: Evaluating the Linguistic Impact of World Arabic Language', *Farasyah: Journal of Linguistics and Language Education* 1, no. 1 (2026): 1–12.

⁷ Syarif Muhammad Syaheed and Ahmad Azkia Salam, 'Beyond Anxiety: Linguistic Calmness and the Emergence of Arabic Speech Flow', *Farasyah: Journal of Linguistics and Language Education* 1, no. 1 (2026): 43–53.

⁸ Muhamad Solehudin et al., 'The Psycholinguistic Effects of Blackboards and Colorful Chalk on Arabic Vocabulary Acquisition in Malaysian', *Articles, Izdihar : Journal of Arabic Language Teaching, Linguistics, and Literature* 8, no. 2 (August 2025), <https://doi.org/10.22219/jiz.v8i2.36624>.

⁹ Nadia Selim, 'Adolescent Non-Arab Muslims Learning Arabic in Australian Islamic Schools: Expectations, Experiences, and Implications', *Religions* 14, no. 1 (January 2023): 71, <https://doi.org/10.3390/rel14010071>.

¹⁰ Maura Pilotti, Halah Alkuhayli, and Runna Al Ghazo, 'Memorization Practice and Academic Success in Saudi Undergraduate Students', *Learning and Teaching in Higher Education: Gulf Perspectives* 18, no. 1 (February 2022): 19–31, <https://doi.org/10.1108/LTHE-08-2020-0030>.

coordination of visual perception,¹¹ motor execution,¹² and repeated physical engagement with script forms.¹³ Contemporary writing research increasingly recognizes handwriting as a psychomotor process in which muscle memory, visual–motor integration, and orthographic automatization play a decisive role in writing fluency and accuracy.¹⁴ However, within Arabic language education particularly in Islamic educational settings this embodied dimension of writing has often been marginalized,¹⁵ as instruction tends to emphasize cognitive knowledge of letters and rules while overlooking the systematic training of the hand as an instrument of writing.¹⁶ As a result, learners may possess receptive familiarity with Arabic texts, including Qur’anic script, yet struggle to translate this knowledge into stable and confident written production.

In the Malaysian context, particularly within Islamic schools and Qur’anic learning institutions in Negeri Sembilan, Arabic writing instruction is often delivered through conventional copying from printed texts or blackboard demonstrations.¹⁷ However, such approaches rarely address the cognitive and motor processes involved in developing writing fluency, nor do they systematically scaffold learners’ engagement with standardized Arabic orthography. As a result, students may demonstrate familiarity with Qur’anic texts at a receptive level while remaining unable to reproduce Arabic script accurately and confidently in written form. This gap highlights an urgent need for pedagogical interventions that bridge Qur’anic literacy and Arabic writing proficiency through intentional instructional design.

¹¹ Rina Khoury-Shaheen and Naomi Weintraub, ‘Arabic Handwriting Vs. Keyboarding: Performance and Underlying Body Functions Among Elementary-School Students’, *Journal of Occupational Therapy, Schools, & Early Intervention* 18, no. 1 (January 2025): 185–99, <https://doi.org/10.1080/19411243.2023.2215757>.

¹² Rafat Ghanamah, ‘Preschool Literacy: Comparing Traditional Handwriting, Digitized Writing, and Typing for Arab Israeli Children’s Skill Enhancement’, *Reading and Writing*, ahead of print, 17 July 2025, <https://doi.org/10.1007/s11145-025-10682-4>.

¹³ Linn Damsgaard et al., ‘Embodied Learning Activities Focusing on Letter-Sound Knowledge Increase Spelling Performance in 1st Grade Children with Low and High Reading Ability’, *Educational Psychology Review* 35, no. 3 (September 2023): 74, <https://doi.org/10.1007/s10648-023-09791-9>.

¹⁴ Camilla L. Fitjar, Vibeke Rønneberg, and Mark Torrance, ‘Assessing Handwriting: A Method for Detailed Analysis of Letter-Formation Accuracy and Fluency’, *Reading and Writing* 37, no. 2 (February 2024): 291–327, <https://doi.org/10.1007/s11145-022-10308-z>.

¹⁵ A. Alkahtani, ‘The Role of Parents in Teaching Arabic Language Skills (Reading and Writing) To Primary School Students in the Corona Pandemic Crisis’, *Information Sciences Letters* 11, no. 13 (2022), <https://digitalcommons.aaru.edu.jo/isl/vol11/iss6/13>.

¹⁶ Naila Tallas-Mahajna and Dua A. Elhija, ‘Arabic Verb Patterns and Macrostructure in Adolescent Narratives: A Comparative Analysis across Writing Systems’, *East European Journal of Psycholinguistics* 12, no. 1 (June 2025): 226–65, <https://doi.org/10.29038/eejpl.2025.12.1.tal>.

¹⁷ Muhamad Solehudin et al., ‘The Psycholinguistic Effects of Blackboards and Colorful Chalk on Arabic Vocabulary Acquisition in Malaysian’.

One instructional medium that has received little scholarly attention in Arabic language pedagogy is the *Rasm 'Uthmānī Qur'anic copybook*, a large-format writing book containing faint or traceable Qur'anic text designed specifically for handwriting practice. Unlike standard mushaf or calligraphy manuals, this copybook allows learners to engage in guided tracing and copying of Qur'anic verses using the standardized *Rasm 'Uthmānī*, thereby reinforcing correct letter shapes, spatial alignment, and orthographic accuracy through repeated motor activity. From a pedagogical perspective, this practice aligns with principles of copy-based writing instruction, muscle memory formation, and psychomotor learning, which are widely recognized in writing development research but remain underexplored in Arabic language education.

Recent studies on writing have examined multiple dimensions of the writing process. Julia Schlam Salman and Irit Haskel-Shaham explored metalinguistic awareness and noticing in L2 writing through translation-based tasks,¹⁸. At the same time, Hassane Razkane et al. investigated the impact of explicit metacognitive writing strategy training on multilingual learners' writing outcomes.¹⁹ The affective and identity-related dimensions of writing were further examined by Asmaa Alshehri et al. through their analysis of writer's voice among Arab learners of English.²⁰ From a technological perspective, Mohamed Dahbali et al.²¹ as well as Yahia Hamdi et al.²² advanced research on handwriting recognition and quality analysis using artificial intelligence. While these studies significantly enrich cognitive, discursive, and technological understandings of writing, they predominantly conceptualize writing as a mental or computational process. Consequently, the pedagogical development of Arabic handwriting as an embodied, psychomotor, and orthographic skill remains underexplored, particularly in Qur'an-based instructional contexts. Addressing this gap, the present study examines *Rasm 'Uthmānī Qur'anic copybook* practice as a

¹⁸ Julia Schlam Salman and Irit Haskel-Shaham, 'Noticing and Metalinguistic Awareness in the L2 Writing Process: A Translation-Based Writing Task for L1 Arabic Speakers Preparing to Teach Hebrew as a Second Language', *Journal of Second Language Writing* 62 (December 2023): 101065, <https://doi.org/10.1016/j.jslw.2023.101065>.

¹⁹ Hassane Razkane et al., 'The Impact of Explicit Metacognitive Writing Strategy Training in English (L3) on Arabic-French-English Trilingual Learners' Writing Outcomes', *English Teaching & Learning* 48, no. 4 (December 2024): 573–602, <https://doi.org/10.1007/s42321-023-00156-7>.

²⁰ Asmaa Alshehri et al., 'An Exploration of Voice in the Writing of Arab Learners of English as a Second Language', *Arab World English Journal* 13, no. 2 (June 2022): 61–72, <https://doi.org/10.24093/awej/vol13no2.5>.

²¹ Mohamed Dahbali, Nouredine Aboutabit, and Nidal Lamghari, 'Subword Recognition in Historical Arabic Manuscripts Using Handcrafted Features and Deep Learning Approaches', *International Journal on Document Analysis and Recognition (IJDAR)* 28, no. 2 (June 2025): 177–93, <https://doi.org/10.1007/s10032-024-00501-x>.

²² Yahia Hamdi et al., 'Handwriting Quality Analysis Using Online-Offline Models', *Multimedia Tools and Applications* 81, no. 30 (December 2022): 43411–39, <https://doi.org/10.1007/s11042-022-13228-w>.

structured pedagogical medium for developing Arabic writing skills in Islamic educational settings.

Previous studies have contributed to Arabic writing pedagogy from several perspectives. Faisol et al. examined line-following writing materials as a means of supporting Arabic writing skill development,²³ highlighting the pedagogical value of structured visual guidance in writing instruction. Kafi et al. investigated metacognitive strategies in Arabic writing, emphasizing planning, monitoring, and self-regulation in writing performance.²⁴ Meanwhile, Zulkifle and Zakaria explored the use of WhatsApp as a digital medium for improving Arabic writing skills.²⁵ These studies demonstrate growing scholarly attention to Arabic writing instruction; however, they primarily address writing materials, metacognitive strategies, or digital platforms. The present study extends this discussion by focusing on Rasm 'Uthmānī Qur'anic copybook practice as a culturally authentic, visual–motor, and psychomotor medium for developing Arabic handwriting accuracy.

Despite these advances, important gaps remain. First, the psychomotor and orthographic foundations of handwriting development are underrepresented in current writing research, particularly in pedagogical studies. Second, Arabic writing instruction has rarely been examined as an embodied skill developed through sustained manual practice, especially in relation to standardized script systems such as Rasm 'Uthmānī. Third, although Qur'anic literacy plays a central role in Islamic education, Qur'an-based writing media are seldom investigated as structured instructional tools for developing *mahārah kitābah* beyond recitation and memorization. Consequently, there is a lack of empirical research that integrates psychomotor learning, orthographic accuracy, and culturally authentic instructional materials in Arabic writing pedagogy.

Current research on writing has progressed across multiple domains. Existing studies have examined writing from cognitive and metacognitive perspectives, highlighting the roles of noticing, strategic planning, monitoring, and cross-linguistic transfer in writing development. Other strands of research have focused on socio-discursive dimensions, such as writer's voices, identities, and cultural positioning in second language writing. In parallel, technological approaches have advanced the analysis of handwriting through artificial

²³ Faisol Faisol et al., 'Follow The Line: Development and Design to Upgrade Materials for Teaching Writing Skills for Students', *Arabiyatuna: Jurnal Bahasa Arab* 8, no. 1 (May 2024): 411, <https://doi.org/10.29240/jba.v8i1.9256>.

²⁴ Fina Aunul Kafi, Wildana Wargadinata, and Ahmad Mubaligh, 'Metacognitive Strategy for Arabic Writing among Students in Arabic Departement', *Arabiyatuna: Jurnal Bahasa Arab* 8, no. 2 (October 2024): 779–804, <https://doi.org/10.29240/jba.v8i2.10841>.

²⁵ Syahmi Syahmi Zulkifle and Zarima Mohd Zakaria, 'Usage WhatsApp in Improving Arabic Writing Skills Students at Higher Education University of Malaysia', *Arabiyatuna: Jurnal Bahasa Arab* 8, no. 2 (November 2024): 913–28, <https://doi.org/10.29240/jba.v8i2.11375>.

intelligence, enabling automated recognition, quality assessment, and feedback systems across multiple scripts, including Arabic. Collectively, these studies conceptualize writing as a cognitive strategic activity, a socio-discursive practice, or a computational object of analysis.

Recent research on writing has conceptualized writing as a multidimensional process encompassing cognitive–metacognitive regulation, socio-discursive identity construction, and technology-driven handwriting analysis. Advances in artificial intelligence have further positioned handwriting as an object of automated recognition and quality assessment, including for Arabic script. However, within Arabic language education, the instructional development of handwriting as an embodied, psychomotor, and orthographic skill particularly through Qur’an-based pedagogical media remains marginally addressed. This indicates a critical need for pedagogically grounded research that integrates psychomotor learning with culturally authentic Arabic writing instruction.

This study addresses these gaps by offering three main contributions. Theoretically, it advances Arabic language pedagogy by foregrounding handwriting as an embodied and psychomotor dimension of *mahārah kitābah*, complementing dominant cognitive and metacognitive perspectives. Pedagogically, it proposes *Rasm ‘Uthmānī* Qur’anic copybook practice as a structured instructional medium that bridges Qur’anic literacy and Arabic writing development. Empirically, it provides qualitative and descriptive quantitative evidence demonstrating how copybook-based practice enhances orthographic accuracy, motor control, and learner confidence in Islamic educational contexts. Together, these contributions position the study as a novel and culturally grounded intervention in contemporary Arabic writing research.

Responding to this gap, the present study aims to investigate how *Rasm ‘Uthmānī Qur’anic copybook practice* contributes to the development of Arabic writing skills among students in Islamic educational institutions in Negeri Sembilan, Malaysia. Specifically, this study seeks to address the following research questions: (1) how is the *Rasm ‘Uthmānī* copybook implemented in Arabic writing instruction, and (2) in what ways does this practice influence students’ accuracy, confidence, and consistency in Arabic handwriting? To maintain analytical focus, this study is limited to beginner and lower-intermediate learners. It examines writing development in terms of orthographic accuracy and writing engagement, rather than broader linguistic production or semantic complexity.

The present study is grounded in the theoretical perspective of embodied learning, which conceptualizes writing not merely as a cognitive-linguistic activity but as a psychomotor process integrating perception, motor execution, and repeated sensorimotor engagement. Within this framework, orthographic development is understood as the gradual internalization of letter forms through coordinated visual–motor practice and the formation of muscle memory.

Research in embodied cognition suggests that repeated physical interaction with symbolic forms strengthens neural pathways associated with procedural fluency and automaticity. Accordingly, Arabic orthography is treated in this study as an embodied skill requiring systematic motor rehearsal rather than solely rule-based instruction. This perspective shifts the focus of Arabic writing pedagogy from abstract knowledge of script conventions to structured physical engagement with standardized letter forms.

The second conceptual foundation of this study lies in the orthographic system of *Rasm ‘Uthmāni*, which represents the standardized script tradition of the Qur’an and embodies distinctive conventions in letter formation, diacritical placement, and word structure. Unlike simplified modern orthography used in some instructional materials, *Rasm ‘Uthmāni* maintains specific graphemic patterns that preserve historical and phonological features of Qur’anic Arabic. From an educational perspective, engaging learners with *Rasm ‘Uthmāni* through structured writing practice reinforces orthographic precision, proportional alignment, and ligature consistency. In this study, the Qur’anic copybook format serves as a pedagogical medium that operationalizes *Rasm ‘Uthmāni* as a scaffolded writing environment, allowing learners to internalize standardized orthographic conventions through guided tracing and repetition.

The third conceptual pillar concerns copybook-based instruction as a form of visual–motor scaffolding. Drawing on theories of scaffolded learning and psychomotor automatization, faint-script tracing functions as graduated guidance that reduces cognitive overload while strengthening motor coordination. Unlike conventional copying from printed text, the traceable format provides immediate spatial cues, proportional alignment support, and structured repetition. This mechanism facilitates procedural learning, gradually transferring control from external visual guidance to internalized motor memory. Within this framework, copybook practice is not viewed as rote imitation but as a structured pathway toward orthographic automatization, confidence development, and writing fluency. Thus, the integration of *Rasm ‘Uthmāni* copybooks in Arabic instruction operates at the intersection of embodied cognition, orthographic systemization, and scaffolded motor learning.

Methodologically, this study adopts a qualitative-dominant convergent mixed-methods design, in which qualitative inquiry serves as the primary analytical framework, supported by descriptive quantitative evidence.²⁶ The qualitative component is framed as a pedagogical case study focusing on the instructional use of *Rasm ‘Uthmāni* Qur’anic copybook practice in Arabic writing development. The research was conducted in selected Islamic educational

²⁶ John W. Creswell and J. David Creswell, *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches* (Los Angeles: SAGE Publications, 2020).

institutions in Negeri Sembilan, Malaysia, chosen due to their integrated curriculum combining Qur'anic literacy and Arabic language instruction.

The participants consisted of 32 beginner and lower-intermediate students enrolled in selected Islamic educational institutions in Negeri Sembilan, Malaysia. Participants were selected purposively because they were actively involved in Arabic writing instruction and Qur'anic learning activities. The intervention was conducted over six weeks through structured copybook-based writing sessions. The writing assessment rubric consisted of four criteria: letter formation accuracy, baseline alignment, connected-letter consistency, and overall writing neatness, each scored on a five-point scale.

Data were collected through systematic classroom observations, semi-structured interviews, and analysis of students' written artifacts produced during the six-week copybook-based writing intervention. Classroom observations focused on instructional procedures, tracing techniques, teacher scaffolding strategies, and students' engagement during Rasm 'Uthmānī copybook writing activities. Semi-structured interviews were conducted with Arabic teachers and selected students to explore their perceptions of the instructional process, writing difficulties, and affective responses toward the use of the copybook. Students' written outputs were analyzed to identify patterns of orthographic accuracy, letter formation, baseline alignment, and writing consistency. These qualitative data sources enabled triangulation and provided a comprehensive understanding of instructional processes, learner engagement, and pedagogical outcomes. To complement the qualitative findings, quantitative data were obtained through pre- and post-writing performance assessments, focusing on orthographic accuracy and consistency and were analyzed using descriptive and inferential statistical procedures.

Students' written artifacts were analyzed using an analytic scoring rubric assessing letter formation accuracy, baseline alignment, connected-letter consistency, and overall writing neatness. Qualitative data were analyzed thematically through several stages, including data reduction, open coding, categorization, and interpretive synthesis. To enhance credibility, data triangulation was conducted across observation notes, interview transcripts, and students' written outputs.

Quantitative data were analyzed descriptively by comparing pre- and post-intervention writing scores using mean score differences and percentage improvement. In addition, a paired-samples t-test was employed to determine whether the observed differences in writing performance were statistically significant. Cohen's *d* was subsequently calculated to estimate the magnitude of the intervention effect.

This study is significant for several reasons. Theoretically, it extends Arabic language pedagogy by foregrounding the psychomotor and orthographic

dimensions of *mahārah kitābah*, which cognitive-linguistic perspectives have often overshadowed. Pedagogically, it offers an empirically grounded model for integrating Qur’anic writing media into Arabic language instruction without conflating pedagogical objectives with purely devotional practices. Practically, the findings provide educators and curriculum designers with an instructional alternative that aligns linguistic accuracy, motor learning, and Qur’anic literacy within a culturally authentic educational framework.

Findings and Discussion

Implementation of Rasm ‘Uthmānī Copybook in Arabic Writing Instruction.

The first research objective examined how the Rasm ‘Uthmānī Qur’anic copybook was implemented in classroom instruction. Classroom observations over six weeks revealed a structured, consistent pedagogical sequence integrating visual exposure, guided tracing, and independent reproduction. The copybook was not introduced as a devotional artifact but as a scaffolded writing instrument designed to train motor precision and orthographic consistency. Teachers emphasized hand control, spatial alignment, and proportional letter formation rather than semantic interpretation of the verses.

To illustrate the instructional structure, the implementation followed a recurring pedagogical cycle summarized in Table 1.

Table 1. Instructional Cycle of Rasm ‘Uthmānī Copybook Implementation

Phase	Instructional Focus	Teacher Role	Student Activity
Phase 1	Oral Exposure	Model recitation	Listen and observe
Phase 2	Visual Attention	Direct focus to faint script	Observe letter shapes
Phase 3	Guided Tracing	Minimal verbal guidance	Trace outlined letters
Phase 4	Independent Copying	Monitor and correct	Reproduce script independently
Phase 5	Feedback & Correction	Provide micro-corrections	Revise and refine

The data indicate that the faint-script tracing stage functioned as the core pedagogical scaffold. Teachers intentionally reduced verbal explanation during tracing sessions, allowing motor imitation to dominate cognitive processing. This structured sequencing minimized cognitive overload and directed attention toward spatial proportion, ligature consistency, and diacritical precision. Observations further revealed progressive reduction of hesitation and improved writing fluency by Week 4.

In summary, the implementation data demonstrate that the copybook operated as a cyclical scaffolded intervention combining visual modeling, guided motor rehearsal, and gradual release toward independent orthographic

reproduction. The instructional design systematically aligned psychomotor practice with standardized Rasm ‘Uthmānī conventions.

The findings of this study should be understood within a pedagogical framework that conceptualizes Arabic writing (*mahārah kitābah*) as an embodied and process-oriented skill rather than a purely cognitive or textual competence. Throughout the implementation of Rasm ‘Uthmānī Qur’anic copybook practice, writing development emerged not as an instantaneous outcome of instruction, but as a gradual transformation shaped by repeated visual exposure, guided motor execution, and sustained engagement with standardized script forms.²⁷ The results presented in this section therefore reflect not only measurable improvements in orthographic accuracy, but also observable changes in students’ bodily familiarity with Arabic writing, including steadier hand movement, improved spatial awareness, and increased writing endurance.²⁸ In this sense, the data illustrate how structured copy-based practice functions as a pedagogical mechanism that aligns psychomotor learning, affective readiness, and orthographic control. Consequently, the findings are interpreted as evidence of a learning process in which writing accuracy and confidence develop simultaneously through embodied repetition, visual–motor scaffolding, and gradual automatization, rather than through explicit rule instruction alone. In this pedagogical framework, learners progressively translate exposure to authentic Qur’anic calligraphy into accurate Arabic writing through guided repetition, embodied practice, and scaffolded visual–motor integration. Consequently, students’ writing accuracy improves alongside growing confidence as procedural fluency is fostered by the Rasm Uthmānī copybook format, which emphasizes proportional ligature formation, diacritical precision, and consistent orthographic conventions.²⁹

Pedagogical Implementation of Rasm ‘Uthmānī Qur’anic Copybook Practice

Classroom observations indicate that the implementation of the *Rasm ‘Uthmānī Qur’anic copybook* followed a consistent pedagogical sequence across instructional sessions. Teachers began with a brief oral exposure to selected Qur’anic verses, followed by focused visual attention on the faint (*traceable*) script

²⁷ Fatima Khaled and Jim Anderson, ‘Textart, Identity and the Creative Process: A Case Study with Arabic Heritage Language Learners’, *International Journal of Bilingual Education and Bilingualism* 27, no. 1 (January 2024): 113–30, <https://doi.org/10.1080/13670050.2022.2158721>.

²⁸ Asma Sharif and Tahir Saleem, ‘Extending Construction Morphology: Typological and Pragmatic Challenges from Urdu Compounding Patterns’, *Cogent Arts & Humanities* 12, no. 1 (December 2025): 2587876, <https://doi.org/10.1080/23311983.2025.2587876>.

²⁹ Tsania Qothrun Nada, Siti Nur Faizah, and Sinta Nuriyah Azzahra, ‘Orthographic Identity of Rasm ‘Uthmānī in the Qur’an: Tracing Substitution, Hamzah, and Word Structure’, *An-Nur International Journal of The Quran & Hadith* 3, no. 1 (May 2025): 44–53, <https://doi.org/10.62032/aijgh.v3i1.79>.

printed in the copybook. Students were instructed to trace the letters carefully before engaging in independent copying within the same structured layout.

The instructional design systematically aligned psychomotor practice with standardized Rasm ‘Uthmānī conventions.

The findings of this study should be understood within a pedagogical framework that conceptualizes Arabic writing (*mahārah kitābah*) as an embodied and process-oriented skill rather than a purely cognitive or textual competence. Throughout the implementation of Rasm ‘Uthmānī Qur’anic copybook practice, writing development emerged not as an instantaneous outcome of instruction, but as a gradual transformation shaped by repeated visual exposure, guided motor execution, and sustained engagement with standardized script forms.³⁰ The results presented in this section therefore reflect not only measurable improvements in orthographic accuracy, but also observable changes in students’ bodily familiarity with Arabic writing, including steadier hand movement, improved spatial awareness, and increased writing endurance.³¹ In this sense, the data illustrate how structured copy-based practice functions as a pedagogical mechanism that aligns psychomotor learning, affective readiness, and orthographic control. Consequently, the findings are interpreted as evidence of a learning process in which writing accuracy and confidence develop simultaneously through embodied repetition, visual–motor scaffolding, and gradual automatization, rather than through explicit rule instruction alone. In this pedagogical framework, learners progressively translate exposure to authentic Qur’anic calligraphy into accurate Arabic writing through guided repetition, embodied practice, and scaffolded visual–motor integration. Consequently, students’ writing accuracy improves alongside growing confidence as procedural fluency is fostered by the Rasm Uthmānī copybook format, which emphasizes proportional ligature formation, diacritical precision, and consistent orthographic conventions.³²

Pedagogical Implementation of Rasm ‘Uthmānī Qur’anic Copybook Practice

Classroom observations indicate that the implementation of the *Rasm ‘Uthmānī Qur’anic copybook* followed a consistent pedagogical sequence across

³⁰ Fatima Khaled and Jim Anderson, ‘Textart, Identity and the Creative Process: A Case Study with Arabic Heritage Language Learners’, *International Journal of Bilingual Education and Bilingualism* 27, no. 1 (January 2024): 113–30, <https://doi.org/10.1080/13670050.2022.2158721>.

³¹ Asma Sharif and Tahir Saleem, ‘Extending Construction Morphology: Typological and Pragmatic Challenges from Urdu Compounding Patterns’, *Cogent Arts & Humanities* 12, no. 1 (December 2025): 2587876, <https://doi.org/10.1080/23311983.2025.2587876>.

³² Tsania Qothrun Nada, Siti Nur Faizah, and Sinta Nuriyah Azzahra, ‘Orthographic Identity of Rasm ‘Uthmānī in the Qur’an: Tracing Substitution, Hamzah, and Word Structure’, *An-Nur International Journal of The Quran & Hadith* 3, no. 1 (May 2025): 44–53, <https://doi.org/10.62032/aijgh.v3i1.79>.

instructional sessions. Teachers began with brief oral exposure to selected Qur'anic verses, followed by focused visual attention on the faint (*traceable*) script. Teachers also highlighted improvements in students' writing endurance and concentration: "*Students can write longer without losing focus. Their hands become familiar with Arabic writing.*" (Teacher Interview 2)

These results indicate that *Rasm 'Uthmānī* copybook practice supports both the psychomotor dimension of writing and learners' affective readiness to engage in Arabic writing tasks.

Quantitative Evidence of Orthographic Improvement through Rasm 'Uthmānī Copybook Practice

To complement the qualitative findings, descriptive quantitative data were employed to illustrate patterns of improvement in students' Arabic writing performance following sustained Rasm 'Uthmānī Qur'anic copybook practice. The analysis involved 32 beginner and lower-intermediate students who participated in structured copybook-based writing sessions over a six-week instructional period. Writing performance was assessed using an analytic rubric that focused on letter-shape accuracy, baseline alignment, connected-letter consistency, and overall writing neatness, with a maximum total score of 20.

The descriptive results indicate a substantial improvement in students' orthographic competence. The mean total writing score increased from 10.2 in the pre-practice phase to 16.2 in the post-practice phase, reflecting an overall improvement of approximately 59%. Gains were consistently observed across all assessed components, particularly in letter shape conformity and spatial alignment, suggesting that repeated tracing and copying of faint Rasm 'Uthmānī script effectively reinforced correct letter formation and proportional consistency. These descriptive gains were subsequently examined through inferential analysis to determine whether the improvement in writing performance was statistically significant.

Further analysis of score distribution revealed a notable shift in writing accuracy levels. Before the intervention, more than half of the students (53%) were categorized in the low-accuracy range, while only 6% demonstrated high orthographic accuracy. Following the copybook practice, the proportion of students achieving high accuracy increased to 66%, while low-accuracy performance declined to 6%. This redistribution indicates not merely incremental improvement, but a structural change in students' writing proficiency levels.

In addition to technical accuracy, descriptive affective measures highlighted improvements in learners' writing confidence. Self-reported confidence scores increased from a mean of 2.8 to 4.3 on a five-point scale, while indicators of writing anxiety decreased markedly. These quantitative trends

support qualitative interview data showing that visual–motor scaffolding provided by faint-script copybooks reduced fear of error and encouraged sustained engagement in Arabic writing tasks. Collectively, these findings reinforce the conclusion that Rasm ‘Uthmānī Qur’anic copybook practice contributes meaningfully to both the psychomotor and affective dimensions of *mahārah kitābah* development.

Table 2. Descriptive Comparison of Students’ Arabic Writing Performance Before and After Rasm ‘Uthmānī Copybook Practice

Writing Aspect	Pre-Practice Mean	Post-Practice Mean	Mean Increase
Letter Shape Accuracy	2.6	4.1	+1.5
Baseline Alignment	2.4	3.9	+1.5
Connected Letter Consistency	2.5	4.0	+1.5
Writing Neatness & Proportionality	2.7	4.2	+1.5
Total Writing Score (Max. 20)	10.2	16.2	+6.0

Table 3. Distribution of Students’ Orthographic Accuracy Levels

Accuracy Level	Pre-Practice (%)	Post-Practice (%)
Low Accuracy (≤ 10)	53%	6%
Moderate Accuracy (11–15)	41%	28%
High Accuracy (≥ 16)	6%	66%

Table 4. Descriptive Results of Students’ Arabic Writing Confidence

Affective Indicator	Pre-Practice Mean	Post-Practice Mean
Confidence in Writing Arabic Letters	2.8	4.3
Fear of Making Writing Errors	3.9	1.8
Willingness to Write Longer Texts	2.6	4.1

The descriptive quantitative data presented in Tables 2–4 provide empirical support for the qualitative findings regarding the effectiveness of Rasm ‘Uthmānī Qur’anic copybook practice in developing Arabic writing skills. As shown in Table 2, students’ mean total writing scores increased from 10.2 to 16.2 out of a maximum of 20, representing an overall improvement of approximately 59%. Gains were consistently observed across all assessed aspects, particularly in letter-shape accuracy, baseline alignment, and connected-letter consistency, indicating strengthened orthographic control and improved motor coordination.

Table 3 further illustrates a substantial shift in students’ writing proficiency levels. Before the intervention, the majority of learners were concentrated in the low-accuracy category, whereas following sustained copybook practice, two-thirds of the students achieved high orthographic accuracy. This redistribution suggests a structural improvement in writing competence rather than isolated individual gains.

In addition to technical improvements, Table 4 highlights notable affective changes. Students reported increased confidence in writing Arabic letters and a marked reduction in fear of making errors. These affective gains support classroom observations indicating that faint-script tracing functioned as effective visual–motor scaffolding, reducing anxiety and encouraging sustained engagement in Arabic writing tasks. Collectively, these quantitative trends corroborate the qualitative evidence that Rasm ‘Uthmānī copybook practice enhances both the psychomotor and affective dimensions of *mahārah kitābah* development.

Inferential Analysis of Orthographic Improvement

To examine whether the observed improvement in writing performance was statistically significant, a paired-samples t-test was conducted comparing pre- and post-practice total writing scores.

The analysis revealed a statistically significant increase in students’ orthographic performance from pre-practice ($M = 10.2$, $SD = 2.1$) to post-practice ($M = 16.2$, $SD = 1.8$), $t(31) = 14.87$, $p < .001$.

The calculated effect size (Cohen’s $d = 2.63$) indicates a very large intervention effect. According to conventional benchmarks for effect size interpretation, this magnitude suggests that the Rasm ‘Uthmānī copybook practice exerted a substantial practical impact on orthographic development.

These inferential findings confirm that the improvement observed in descriptive analysis reflects systematic learning progress rather than random variation.

Table 5. Paired-Samples t-Test Results for Total Writing Score

Variable	Mean Difference	t	df	p-value	Cohen’s d
Total Writing Score	6.0	14.87	31	< .001	2.63

The findings of this study demonstrate that Rasm ‘Uthmānī Qur’anic copybook practice constitutes an effective pedagogical approach for developing Arabic writing skills, particularly in terms of orthographic accuracy, motor control, and learner confidence. These outcomes support theoretical perspectives that conceptualize writing as an embodied skill, involving visual–motor coordination and muscle memory, rather than a purely cognitive-linguistic process.

From a psychomotor learning perspective, the repeated tracing and copying of standardized Qur’anic script facilitated the internalization of correct letter forms through guided motor repetition. This aligns with copy-based writing pedagogy, which emphasizes structured imitation as a foundation for writing automatization. Unlike conventional copying from printed texts, the faint-text

design of the copybook functioned as a graduated scaffold, gradually withdrawn as learners gained confidence and control.

When compared with previous studies on Arabic writing instruction, this study offers several important contributions. Earlier research has largely focused on calligraphy training, digital handwriting applications, or general writing exercises, often emphasizing aesthetic outcomes or technological affordances. While such studies acknowledge the importance of practice, they rarely examine Qur'an-based writing media as a systematic pedagogical intervention for mahārah kitābah. Moreover, existing studies tend to prioritize cognitive or linguistic outcomes, with limited attention to the embodied and orthographic dimensions of writing.

This study extends prior literature by demonstrating that Qur'anic copybooks grounded in Rasm 'Uthmānī can function as a linguistically rigorous and pedagogically purposeful medium, rather than merely a religious or artistic artifact. In contrast to research on Qur'anic literacy that focuses primarily on recitation and memorization, the present findings highlight the role of Qur'anic writing practice in reinforcing Arabic orthographic competence without conflating instructional objectives with devotional aims.

The affective outcomes observed particularly reduced writing anxiety and increased learner confidence also resonate with earlier studies on scaffolded writing instruction. However, this study contributes a novel insight by showing that visual faint-script scaffolding embedded in culturally authentic Qur'anic materials offers an effective alternative to generic handwriting worksheets or digital tracing tools, especially within Islamic educational contexts.

This study fills a significant gap in Arabic language pedagogy by foregrounding the psychomotor, orthographic, and affective dimensions of mahārah kitābah through Rasm 'Uthmānī copybook practice. The findings suggest that integrating such media into Arabic language curricula can enhance writing accuracy, learner confidence, and pedagogical coherence, particularly in contexts where Qur'anic literacy and Arabic language instruction intersect, such as Islamic educational institutions in Malaysia.

The findings of this study contribute to ongoing discussions in writing pedagogy by reaffirming that writing development is not solely a cognitive or linguistic process, but also an embodied and psychomotor activity that requires systematic instructional support. Previous research on second language writing has predominantly emphasized cognitive and metacognitive dimensions, such as noticing, strategic regulation, and cross-linguistic awareness. Studies by Schlam Salman and Haskel-Shaham demonstrate how metalinguistic noticing supports writing development, while Razkane et al. show that explicit metacognitive strategy training enhances multilingual learners' writing performance. These studies provide valuable insights into how learners mentally regulate their writing;

however, they largely treat handwriting as a transparent medium rather than a skill that requires pedagogical cultivation in its own right.

The present study extends this line of research by demonstrating that, in Arabic language education, orthographic accuracy and writing fluency cannot be sufficiently explained through cognitive instruction alone. The observed improvements in letter formation, spatial alignment, and connected writing patterns indicate that handwriting development operates as an embodied learning process in which visual–motor coordination and repeated physical engagement play a central role. This finding resonates with broader embodied learning research, which suggests that motor-based engagement facilitates symbol learning and automatization. Within this framework, Rasm ‘Uthmānī Qur’anic copybook practice functions as a structured environment in which learners gradually internalize correct orthographic forms through guided motor repetition rather than explicit rule explanation.

From a technological perspective, recent studies on handwriting analysis and recognition, such as those by Hamdi et al. and Dahbali et al., conceptualize handwriting primarily as a computational object to be measured, evaluated, or recognized using artificial intelligence. While this strand of research advances tools for assessment and feedback, it offers limited insight into how handwriting skills are pedagogically formed in classroom settings. In contrast, the present study re-centers handwriting as an instructional process, demonstrating that foundational orthographic control emerges through sustained, low-technology pedagogical practices before learners are exposed to digital or automated evaluation systems. In this sense, the study complements rather than contradicts technology-driven research by highlighting the pedagogical groundwork necessary for meaningful handwriting proficiency.

The affective outcomes observed in this study particularly reduced writing anxiety and increased learner confidence align with earlier findings on scaffolded writing instruction. Similar findings have been reported in Arabic writing pedagogy, where paragraph-focused instruction was found to reduce writing anxiety, lower cognitive load, and increase learners’ confidence and willingness to write.³³ Prior research has shown that structured scaffolding supports learners’ affective readiness by lowering fear of error and encouraging sustained engagement. The present findings extend this insight by demonstrating that faint-script tracing embedded in culturally authentic Qur’anic materials provides an effective form of visual–motor scaffolding. Unlike generic handwriting worksheets or digital tracing tools, the Rasm ‘Uthmānī copybook leverages

³³ Menik Mahmudah et al., ‘From Sentence Anxiety to Paragraph Confidence: A Pedagogical Study of Arabic Writing Development’, *Al-Muhawaroh: Jurnal Pendidikan Bahasa Arab* 2, no. 1 (2026): 12–22, <https://doi.org/10.38073/almuhawaroh.v2i1.4151>.

learners' prior familiarity with Qur'anic script, thereby strengthening confidence while maintaining orthographic rigor within Islamic educational contexts.

Importantly, this study diverges from much of the existing literature on Qur'anic literacy, which has traditionally focused on memorization, recitation, and phonological accuracy. While such studies affirm the central role of the Qur'an in Islamic education, they rarely examine Qur'an-based writing practices as structured pedagogical interventions for developing *mahārah kitābah*. The present findings demonstrate that Qur'anic writing media, when pedagogically framed, can serve as an effective instructional tool for enhancing orthographic accuracy and motor control without conflating pedagogical objectives with devotional aims. This distinction is crucial for positioning Qur'an-based materials as academically legitimate resources in Arabic language pedagogy.

Overall, by situating its findings within and beyond existing research, this study offers a meaningful contribution to Arabic writing pedagogy. It confirms prior claims regarding the importance of practice and scaffolding, extends writing research by foregrounding the psychomotor and orthographic dimensions of handwriting, and diverges from cognition- or technology-dominated models by demonstrating how embodied writing skills can be systematically cultivated through culturally grounded instructional design. As such, the study advances a more holistic understanding of *mahārah kitābah* that integrating cognitive awareness, motor learning, and cultural authenticity within Islamic educational settings.

The findings of this study demonstrate that Rasm 'Uthmānī Qur'anic copybook practice significantly enhances orthographic accuracy, writing consistency, and learner confidence in Arabic handwriting. The structured tracing format functioned as visual–motor scaffolding, facilitating procedural automatization and psychomotor coordination. As argued by Damsgaard and colleagues, handwriting development benefits from embodied learning activities that strengthen symbol internalization through motor engagement. Similarly, Fitjar and collaborators emphasize that letter-formation accuracy and fluency emerge from systematic rehearsal rather than abstract rule memorization.³⁴ In the context of writing strategy research, Razkane and co-authors, as well as Kafi and colleagues, highlight that scaffolded instruction contributes to improved writing performance and learner confidence. Collectively, the present results reinforce the view that orthographic mastery develops through structured motor practice integrated with culturally meaningful script exposure.

Within the Malaysian Islamic educational landscape, Qur'anic literacy remains central to curricular identity, particularly in *tabfīz*-integrated institutions. Selim notes that in Islamic school contexts, Arabic learning is frequently shaped

³⁴ Fitjar, Ronneberg, and Torrance, 'Assessing Handwriting'.

by religious expectations that prioritize recitation over written production. Likewise, Abdul Rahim and colleagues observe that quality evaluation in tahfiz-based schools often emphasizes memorization outcomes rather than orthographic development.³⁵ Against this background, Abdalla argues that Islamic education requires pedagogical renewal that integrates tradition with structured instructional innovation.³⁶ In a similar vein, Hanifansyah and Mahmudah demonstrate how culturally grounded strategies can enhance Arabic proficiency in Malaysian settings. The present study contributes to this discourse by showing that Qur'an-based writing media can be repositioned as structured orthographic training while maintaining cultural authenticity.

From a theoretical standpoint, the findings suggest that Arabic orthographic competence is fundamentally sensorimotor. Damsgaard and colleagues demonstrate that embodied engagement enhances symbol acquisition and procedural fluency in literacy learning. Khoury-Shaheen and Weintraub further show that handwriting performance is closely tied to underlying motor coordination and bodily functions. Fitjar and collaborators explain that detailed analysis of letter formation reveals the centrality of motor precision in writing development.³⁷ Similarly, Ghanamah's comparison of traditional handwriting and digitized writing underscores the enduring importance of manual practice in strengthening orthographic stability. In this light, Rasm 'Uthmānī copybook practice operates as a structured motor-learning environment that promotes orthographic internalization.

A deeper insight emerging from this research is that Qur'anic familiarity, when pedagogically structured, can function as an affective resource in writing instruction. Khaled and Anderson highlight how identity and creative engagement with the script contribute to learner investment in heritage-language contexts. Alshehri and colleagues further emphasize that meaningful linguistic experiences shape writer identity and voice. Razkane and co-authors show that structured scaffolding reduces cognitive load and fosters confidence, while Zulkifle and Zakaria demonstrate that guided writing environments enhance engagement in higher education settings. A key insight of the present study is that orthographic precision and emotional readiness develop simultaneously when motor practice is embedded within culturally resonant materials.

Compared with prior research, this study extends beyond technology-centered or purely cognitive writing interventions. Hamdi and collaborators conceptualize handwriting primarily as an object of computational analysis

³⁵ Abdul Rahim, A, Aminurraasyid Y, and Mohd Farihal O, 'Student Quality Evaluation amongst Tahfiz Science Schools in Malaysia'.

³⁶ Mohamad Abdalla, 'Exploring Tarbiyah in Islamic Education: A Critical Review of the English- and Arabic-Language Literature', *Education Sciences* 15, no. 5 (April 2025): 559, <https://doi.org/10.3390/educsci15050559>.

³⁷ Fitjar, Rønneberg, and Torrance, 'Assessing Handwriting'.

through online–offline modeling systems. Dahbali and colleagues advance subword recognition in Arabic manuscripts using deep learning approaches, focusing on recognition rather than instructional formation. Meanwhile, Schlam Salman and Haskel-Shaham foreground metalinguistic noticing in translation-based writing tasks, and Razkane et al. emphasize explicit metacognitive strategy instruction in multilingual contexts.³⁸ While these studies offer valuable insights, they treat handwriting either as a cognitive outcome or as a computational artifact. The present research complements these strands by foregrounding psychomotor rehearsal and standardized orthography as central instructional variables in Arabic writing pedagogy.

The implications of this study are pedagogical, curricular, and psychological. Psychologically, the use of Rasm ‘Uthmānī copybook practice helps reduce learners’ writing anxiety by providing faint-script visual guidance that minimizes the fear of making mistakes. The tracing format creates a sense of security because students are not required to produce Arabic script independently from the beginning. Instead, they gradually develop confidence through guided repetition, visual–motor familiarity, and successful letter reproduction. In the context of *mahārah kitābah*, this psychological support is important because writing Arabic requires not only cognitive knowledge of letters but also confidence, motor readiness, and emotional willingness to engage in written production. Therefore, the copybook functions not only as a handwriting medium but also as an affective scaffold that supports learners’ confidence, concentration, and willingness to write longer Arabic texts.

Based on these insights, Arabic writing curricula in Islamic schools should incorporate structured visual–motor scaffolding, teacher training in psychomotor instruction, and gradual transition toward independent orthographic production. Future research may expand this framework through longitudinal intervention studies and hybrid digital–manual models to explore transfer effects into advanced composition.

Conclusion

This study investigated the pedagogical use of Rasm ‘Uthmānī Qur’anic copybook practice as an instructional medium for developing Arabic writing skills (*mahārah kitābah*) among beginner and lower-intermediate learners in Islamic educational institutions in Negeri Sembilan, Malaysia. The findings demonstrate that structured copybook-based practice significantly improves orthographic accuracy, writing consistency, psychomotor coordination, and learner confidence in Arabic handwriting.

³⁸ Razkane et al., ‘The Impact of Explicit Metacognitive Writing Strategy Training in English (L3) on Arabic-French–English Trilingual Learners’ Writing Outcomes’.

The study answers the first research question by showing that the implementation of the Rasm ‘Uthmānī copybook followed a structured pedagogical sequence consisting of visual exposure, guided tracing, independent copying, and corrective feedback. The second research question is addressed through evidence indicating that sustained copybook practice positively influenced students’ letter formation accuracy, baseline alignment, connected-letter consistency, and willingness to engage in Arabic writing activities.

Beyond technical improvement, the findings also reveal important psychological implications. The faint-script tracing format reduced learners’ anxiety and fear of making writing mistakes by providing visual–motor scaffolding and gradual writing support. As a result, students developed stronger confidence, concentration, and emotional readiness to participate in Arabic writing tasks. These findings suggest that Arabic handwriting development is not merely a cognitive process but also an embodied and affective learning experience requiring psychomotor and psychological support.

Pedagogically, this study contributes to Arabic language education by positioning Rasm ‘Uthmānī Qur’anic copybooks as culturally authentic instructional media that bridge Qur’anic literacy and Arabic writing development. The study further contributes theoretically by foregrounding the psychomotor and orthographic dimensions of mahārah kitābah, which are often underrepresented in Arabic writing pedagogy.

Nevertheless, this study has several limitations. The research was conducted within a limited educational context involving beginner and lower-intermediate learners in selected Islamic institutions in Negeri Sembilan. The intervention period was relatively short and focused primarily on orthographic accuracy rather than broader dimensions of written composition or long-term writing transfer.

Therefore, future studies are recommended to employ longitudinal or comparative designs with larger, and more diverse participant groups. Further research may also explore the integration of digital and hybrid Qur’anic copybook models, as well as the transfer of psychomotor handwriting improvement into advanced Arabic composition and creative writing performance.

References

- A. Alkahtani. ‘The Role of Parents in Teaching Arabic Language Skills (Reading and Writing) To Primary School Students in the Corona Pandemic Crisis’. *Information Sciences Letters* 11, no. 13 (2022). <https://digitalcommons.aaru.edu.jo/isl/vol11/iss6/13>.
- Abdalla, Mohamad. ‘Exploring Tarbiyah in Islamic Education: A Critical Review of the English- and Arabic-Language Literature’. *Education Sciences* 15, no. 5 (April 2025): 559. <https://doi.org/10.3390/educsci15050559>.

- Abdul Rahim. A, Aminurraasyid Y, and Mohd Farihal O. 'Student Quality Evaluation amongst Tahfiz Science Schools in Malaysia'. *The Journal of Social Sciences Research*, no. SPI6 (December 2018): 319–24. <https://doi.org/10.32861/jssr.spi6.319.324>.
- Aflisia, Noza, Kasmantoni, and Yunika Febri Yanti. "Writing Errors: A Study of Students Linguistic Errors in Inasya Muwajjah Learning." *An Nabighob* 26, no. 1 (June 14, 2024): 79–96. <https://doi.org/10.32332/ANNABIGHOH.V26I1.79-96>.
- Alshehri, Asmaa, Muhammad Alasmari, Fawaz Qasem, and Rashad Ahmed. 'An Exploration of Voice in the Writing of Arab Learners of English as a Second Language'. *Arab World English Journal* 13, no. 2 (June 2022): 61–72. <https://doi.org/10.24093/awej/vol13no2.5>.
- Bangsa, Wira Nama Wira, Ahmad Azkia Salam, and Nur Aunie Batrisya. 'Introduction to Arabic Dictation (Imlā'): A Foundational Guide to Writing Accuracy'. *Al-Muhawaroh: Jurnal Pendidikan Bahasa Arab* 1, no. 2 (August 2025): 59–69. <https://doi.org/10.38073/almuhawaroh.v2i1.3503>.
- Creswell, John W., and J. David Creswell. *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches*. Los Angeles: SAGE Publications, 2020.
- Dahbali, Mohamed, Nouredine Aboutabit, and Nidal Lamghari. 'Subword Recognition in Historical Arabic Manuscripts Using Handcrafted Features and Deep Learning Approaches'. *International Journal on Document Analysis and Recognition (IJDAR)* 28, no. 2 (June 2025): 177–93. <https://doi.org/10.1007/s10032-024-00501-x>.
- Damsgaard, Linn, Anne-Mette Veber Nielsen, Marta Katarzyna Topor, Rasmus Ahmt Hansen, Søren Kildahl Jensen, Rebekka Læssøe Markers, Anne Kær Gejl, Anne Sofie Bøgh Malling, and Jacob Wienecke. 'Embodied Learning Activities Focusing on Letter-Sound Knowledge Increase Spelling Performance in 1st Grade Children with Low and High Reading Ability'. *Educational Psychology Review* 35, no. 3 (September 2023): 74. <https://doi.org/10.1007/s10648-023-09791-9>.
- Faisol, Faisol, Riski Janu Saputra, Devi Rafika Sari, and Uril Bahrudin. 'Follow The Line: Development and Design to Upgrade Materials for Teaching Writing Skills for Students'. *Arabiyatuna: Jurnal Bahasa Arab* 8, no. 1 (May 2024): 411. <https://doi.org/10.29240/jba.v8i1.9256>.
- Fitjar, Camilla L., Vibeke Rønneberg, and Mark Torrance. 'Assessing Handwriting: A Method for Detailed Analysis of Letter-Formation Accuracy and Fluency'. *Reading and Writing* 37, no. 2 (February 2024): 291–327. <https://doi.org/10.1007/s11145-022-10308-z>.
- Ghanamah, Rafat. 'Preschool Literacy: Comparing Traditional Handwriting, Digitized Writing, and Typing for Arab Israeli Children's Skill Enhancement'. *Reading and Writing*, ahead of print, 17 July 2025. <https://doi.org/10.1007/s11145-025-10682-4>.

- Hamdi, Yahia, Hanen Akouaydi, Houcine Boubaker, and Adel M. Alimi. 'Handwriting Quality Analysis Using Online-Offline Models'. *Multimedia Tools and Applications* 81, no. 30 (December 2022): 43411–39. <https://doi.org/10.1007/s11042-022-13228-w>.
- Hanifansyah, Nur, and Menik Mahmudah. 'Enhancing Arabic Vocabulary Mastery Through Communicative Strategies: Evidence from Malaysia'. *Al-Ta'rib: Jurnal Ilmiah Program Studi Pendidikan Bahasa Arab IAIN Palangka Raya* 12, no. 2 (December 2024): 263–78. <https://doi.org/10.23971/altarib.v12i2.9082>.
- Kafi, Fina Aunul, Wildana Wargadinata, and Ahmad Mubaligh. 'Metacognitive Strategy for Arabic Writing among Students in Arabic Departement'. *Arabiyatuna: Jurnal Bahasa Arab* 8, no. 2 (October 2024): 779–804. <https://doi.org/10.29240/jba.v8i2.10841>.
- Khaled, Fatima, and Jim Anderson. 'Textart, Identity and the Creative Process: A Case Study with Arabic Heritage Language Learners'. *International Journal of Bilingual Education and Bilingualism* 27, no. 1 (January 2024): 113–30. <https://doi.org/10.1080/13670050.2022.2158721>.
- Khoury-Shaheen, Rina, and Naomi Weintraub. 'Arabic Handwriting Vs. Keyboarding: Performance and Underlying Body Functions Among Elementary-School Students'. *Journal of Occupational Therapy, Schools, & Early Intervention* 18, no. 1 (January 2025): 185–99. <https://doi.org/10.1080/19411243.2023.2215757>.
- Mahmudah, Menik, Afaf Fudhla, Nurul Azira, Juharoh, and Mustahar Ali Wardana. 'From Sentence Anxiety to Paragraph Confidence: A Pedagogical Study of Arabic Writing Development'. *Al-Muhawaroh: Jurnal Pendidikan Bahasa Arab* 2, no. 1 (2026): 12–22. <https://doi.org/10.38073/almuhawaroh.v2i1.4151>.
- Marlina, Lina. 'Phonological Errors in Reading Tawasul among Cirangrang Society, Bandung District'. *Arabiyatuna: Jurnal Bahasa Arab* 5, no. 2 (October 2021): 235. <https://doi.org/10.29240/jba.v5i2.2951>.
- Muhamad Solehudin, Nur Hanifansyah, Masnun, Yusuf Arisandi, Menik Mahmudah, and Syarif Syaheed. 'The Psycholinguistic Effects of Blackboards and Colorful Chalk on Arabic Vocabulary Acquisition in Malaysian'. Articles. *Izdiibar: Journal of Arabic Language Teaching, Linguistics, and Literature* 8, no. 2 (August 2025). <https://doi.org/10.22219/jiz.v8i2.36624>.
- Mukhasibi, Abdullah, and Iqmal Wahyudi. 'Immersive Arabic Islamic Environment and Student Engagement: Evaluating the Linguistic Impact of World Arabic Language'. *Farasyah: Journal of Linguistics and Language Education* 1, no. 1 (2026): 1–12.
- Nada, Tsania Qothrun, Siti Nur Faizah, and Sinta Nuriyah Azzahra. 'Orthographic Identity of Rasm 'Uthmānī in the Qur'an: Tracing Substitution, Hamzah, and Word Structure'. *An-Nur International Journal of*

- The Quran & Hadith* 3, no. 1 (May 2025): 44–53.
<https://doi.org/10.62032/aijgh.v3i1.79>.
- Pilotti, Maura, Halah Alkuhayli, and Runna Al Ghazo. ‘Memorization Practice and Academic Success in Saudi Undergraduate Students’. *Learning and Teaching in Higher Education: Gulf Perspectives* 18, no. 1 (February 2022): 19–31. <https://doi.org/10.1108/LTHE-08-2020-0030>.
- Razkane, Hassane, Adil Youssef Sayeh, Samir Diouny, and Mohamed Yeou. ‘The Impact of Explicit Metacognitive Writing Strategy Training in English (L3) on Arabic-French–English Trilingual Learners’ Writing Outcomes’. *English Teaching & Learning* 48, no. 4 (December 2024): 573–602. <https://doi.org/10.1007/s42321-023-00156-7>.
- Schlam Salman, Julia, and Irit Haskel-Shaham. ‘Noticing and Metalinguistic Awareness in the L2 Writing Process: A Translation-Based Writing Task for L1 Arabic Speakers Preparing to Teach Hebrew as a Second Language’. *Journal of Second Language Writing* 62 (December 2023): 101065. <https://doi.org/10.1016/j.jslw.2023.101065>.
- Selim, Nadia. ‘Adolescent Non-Arab Muslims Learning Arabic in Australian Islamic Schools: Expectations, Experiences, and Implications’. *Religions* 14, no. 1 (January 2023): 71. <https://doi.org/10.3390/rel14010071>.
- Sharif, Asma, and Tahir Saleem. ‘Extending Construction Morphology: Typological and Pragmatic Challenges from Urdu Compounding Patterns’. *Cogent Arts & Humanities* 12, no. 1 (December 2025): 2587876. <https://doi.org/10.1080/23311983.2025.2587876>.
- Syaheed, Syarif Muhammad, and Ahmad Azkia Salam. ‘Beyond Anxiety: Linguistic Calmness and the Emergence of Arabic Speech Flow’. *Farasyah: Journal of Linguistics and Language Education* 1, no. 1 (2026): 43–53.
- Tallas-Mahajna, Naila, and Dua A. Elhija. ‘Arabic Verb Patterns and Macrostructure in Adolescent Narratives: A Comparative Analysis across Writing Systems’. *East European Journal of Psycholinguistics* 12, no. 1 (June 2025): 226–65. <https://doi.org/10.29038/eejpl.2025.12.1.tal>.
- Tarmizi, Ahmad, Faisol Mahmud Adam Ibrahim, and R. Taufiqurrochman. ‘Tathwir Mawad Al-Ta’bir al-Tahriry ‘Ala Dhu’i Maharat al-Tafkir al-Úlya Li Tarqiyah Kitabah al-Maqalah Li Thullabah Qism Ta’Lim al-Lughah al-Árabiyyah’. *Arabiyatuna: Jurnal Bahasa Arab* 6, no. 1 (April 2022): 25. <https://doi.org/10.29240/jba.v6i1.3242>.
- Zulkifle, Syahmi Syahmi, and Zarima Mohd Zakaria. ‘Usage WhatsApp in Improving Arabic Writing Skills Students at Higher Education University of Malaysia’. *Arabiyatuna: Jurnal Bahasa Arab* 8, no. 2 (November 2024): 913–28. <https://doi.org/10.29240/jba.v8i2.11375>.