

The Challenges of Teaching Jawi among Islamic Education Trainee Teachers: A Systematic Literature Review

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Abstract

This study aims to systematically examine the level of readiness and challenges faced by Islamic Education trainee teachers in teaching the Jawi script. Despite growing research on Jawi instruction, few studies have synthesized evidence on trainee teachers' preparedness and instructional challenges. This study used a Systematic Literature Review (SLR) guided by the PRISMA framework to ensure a rigorous and transparent selection process. A total of 13 articles were selected from the Scopus, Web of Science, and Google Scholar databases and analyzed thematically in relation to two main research questions. The findings indicate that trainee teachers show a moderate level of readiness, especially in pedagogical competence, content knowledge, and technological integration. However, several ongoing challenges were identified, including students' low mastery of Jawi, limited teaching resources, and negative student attitudes, which hinder effective teaching. The study emphasizes the need for more practice-oriented teacher training programs that focus on 21st-century pedagogical skills, technology integration, and innovative instructional methods. This review contributes to the existing body of knowledge by providing a focused and comprehensive synthesis of trainee teachers' readiness and challenges in Jawi instruction, particularly within the Malaysian Islamic education context.

Keywords: Jawi Script, Trainee Teachers, Islamic Education, Teaching, Challenges

Introduction

The Jawi script represents a significant component of Islamic and Malay heritage, playing a crucial role in the historical development of knowledge dissemination and cultural identity in the Malay world. As an adapted form of the Arabic script, Jawi has long been used in religious texts, classical literature, and administrative documents, particularly since the arrival of Islam in the region. In the context of contemporary Islamic education, mastery of the Jawi script remains an essential foundational skill, especially for understanding key religious sources such as the Qur'an, Hadith, and classical Islamic texts. Consequently, the role of Islamic Education

trainee teachers (GPPI) is vital in ensuring that this heritage is effectively transmitted to future generations through meaningful teaching and learning processes.

The importance of Jawi instruction extends beyond technical literacy, as it also contributes to the development of students' cultural identity and appreciation of Islamic heritage. Effective teaching of Jawi can enhance students' ability to engage with authentic religious sources while fostering a sense of belonging to their linguistic and cultural roots. In line with 21st-century educational demands, trainee teachers are expected not only to possess adequate content knowledge but also to integrate pedagogical skills, technology, and soft skills such as communication and adaptability (Arif & Aziz, 2023; Kniaz & Chukhno, 2021). Therefore, the readiness of trainee teachers to teach Jawi is a multidimensional construct encompassing cognitive, pedagogical, and affective competencies.

However, current developments indicate several challenges in the teaching and learning of the Jawi script. Previous studies have reported that trainee teachers generally demonstrate a moderate level of mastery in Jawi, particularly in aspects such as letter variation and spelling structures (Ahmad Tajuddin & Zulkifli, 2024). At the same time, the implementation of effective teaching strategies remains an issue, especially in addressing diverse student needs and integrating technology into the classroom (Rajikal & Hamzah, 2022). Furthermore, students' low mastery of Jawi continues to be a persistent concern, as many learners struggle with basic reading and writing skills despite years of exposure (Suhana et al., 2016). This situation is compounded by limited teaching resources, lack of digital teaching aids, and insufficient training in technology integration, particularly highlighted during the COVID-19 pandemic (Nor Sahara et al., 2022).

In addition, students' attitudes and perceptions towards Jawi present another significant challenge. Some studies indicate that students perceive Jawi as difficult and less relevant, leading to low motivation and engagement in learning (Zetty Nurzuliana et al., 2023). Confusion between Rumi and Jawi scripts in learning materials further complicates the learning process (Kamaruzaman & Abdullah, 2021). These issues place additional pressure on trainee teachers, who must adopt creative and adaptive teaching approaches to ensure effective learning outcomes.

Despite the growing body of research on Jawi instruction, there remains a lack of comprehensive synthesis that specifically examines both the level of readiness and the challenges faced by Islamic Education trainee teachers in teaching Jawi. Most previous studies tend to focus either on student mastery or general teaching issues, without systematically integrating findings related to trainee teachers' preparedness and instructional challenges. This gap highlights the need for a systematic literature review to provide a holistic understanding of the issue.

Therefore, this study aims to systematically review existing literature to examine (i) the level of readiness of Islamic Education trainee teachers (GPPI) in teaching Jawi and (ii) the challenges affecting their teaching practices. The findings of this study are expected to provide valuable insights for improving teacher training programs and enhancing the effectiveness of Jawi instruction in the context of Islamic education.

Literature Review

Readiness of Islamic Education Trainee Teachers in Teaching Jawi

The readiness of Islamic Education trainee teachers (GPPI) plays a crucial role in determining the effectiveness of Jawi instruction. Previous studies have consistently highlighted that trainee teachers generally possess a moderate level of mastery in Jawi, particularly in aspects such as letter recognition and basic spelling structures (Ahmad Tajuddin & Zulkifli, 2024). However, this level of mastery is often insufficient when dealing with more complex linguistic features of Jawi, indicating a gap between foundational knowledge and advanced instructional competence.

In addition, several studies emphasise that content knowledge alone is not adequate to ensure effective teaching. Rajikal and Hamzah (2022) argue that pedagogical competence, particularly the ability to implement student-centred approaches and adapt teaching strategies, is equally important. This view is supported by Arif and Aziz (2023), who highlight the need for integrating technology into Jawi instruction to align with 21st-century learning demands. Nevertheless, the integration of technology among trainee teachers remains inconsistent, suggesting limitations in training and exposure.

Furthermore, the role of soft skills has been increasingly recognised as a critical component of teacher readiness. Kniaz and Chukhno (2021) emphasise that communication skills, adaptability, and reflective practices are essential for effective teaching. These findings indicate that trainee teachers' readiness is multidimensional, encompassing cognitive, pedagogical, and affective domains. However, existing literature tends to examine these components in isolation, resulting in a lack of comprehensive understanding of how these elements interact in shaping overall teaching readiness.

Additionally, the cultural dimension of Jawi instruction has been highlighted in previous studies. Rahman et al. (2022) argue that teaching Jawi should not be viewed solely as a technical skill but as a means of preserving Islamic and Malay identity. Despite this, limited attention has been given to how trainee teachers are prepared to integrate cultural values into their instructional practices. This suggests a gap in current teacher training programmes, which often prioritise technical and pedagogical aspects over cultural integration.

Challenges in Teaching Jawi

The literature also reveals several persistent challenges in the teaching and learning of Jawi. One of the most frequently reported issues is students' low level of mastery. Suhana et al. (2016) found that many students struggle with basic reading and writing skills despite prolonged exposure to Jawi instruction. This issue creates additional pressure on trainee teachers, who must adapt their teaching strategies to accommodate varying levels of student ability.

In addition, limited teaching resources and technological support have been identified as significant barriers. Nor Sahara et al. (2022) reported that trainee teachers faced difficulties in implementing effective teaching strategies, particularly during online learning, due to a lack of digital teaching aids and insufficient training in integrating technology. While the

importance of innovative teaching tools has been widely acknowledged, the availability and accessibility of such resources remain limited.

Another major challenge relates to students' attitudes and perceptions towards Jawi. Zetty Nurzuliana et al. (2023) highlighted that students often perceive Jawi as difficult and less relevant, leading to low motivation and engagement. This issue is further complicated by confusion between Jawi and Rumi scripts, as noted by Kamaruzaman and Abdullah (2021). These findings suggest that challenges in Jawi instruction are not only cognitive but also psychological in nature.

Despite the growing body of research on Jawi instruction, existing studies tend to focus either on student-related issues or general teaching challenges. There is still a lack of systematic synthesis that specifically examines the interplay between trainee teachers' readiness and the challenges they face in teaching Jawi. Therefore, this study addresses this gap by providing a comprehensive review that integrates both dimensions within a single analytical framework.

Methodology

This study employed a Systematic Literature Review (SLR) approach guided by the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) framework to ensure a systematic, transparent, and rigorous review process. The PRISMA approach is widely recognised for enhancing the quality and reliability of review studies. This study aims to examine the readiness and challenges faced by Islamic Education trainee teachers in teaching Jawi. Articles were systematically retrieved from three major databases: Scopus, Web of Science (WoS), and Google Scholar. These databases were selected due to their credibility, wide academic coverage, and relevance to educational research.

The search process was conducted using keywords such as "Jawi teaching", "Islamic education teacher trainees", "Jawi writing skills", and "teaching challenges". Only articles published between 2016 and 2025 were included to ensure the relevance and currency of the findings. The study followed four main phases of the PRISMA process: identification, screening, eligibility, and inclusion. During the identification phase, a total of 250 articles were retrieved (Scopus = 50, WoS = 50, Google Scholar = 150). In the screening phase, duplicate and irrelevant articles were removed based on title, abstract, and keywords, resulting in 150 articles. In the eligibility phase, full-text articles were assessed based on predefined inclusion and exclusion criteria. Articles were included if they (i) focused on Islamic Education, (ii) addressed Jawi teaching, and (iii) examined issues related to trainee or novice teachers. Articles not related to formal education or lacking full-text access were excluded. Following this process, 25 articles were shortlisted.

Finally, in the inclusion phase, 13 articles that met all criteria were selected for in-depth analysis. Data from these articles were analysed thematically based on two main themes: (i) trainee teachers' readiness and (ii) challenges in teaching Jawi. To ensure the quality of the selected studies, a quality assessment was conducted using the Mixed Methods Appraisal Tool (MMAT). Two evaluators independently assessed each article based on methodological quality, and consensus was achieved through discussion. Only articles that met the minimum quality criteria were included in the final analysis.

Identification

In this stage, three databases were systematically used as primary sources: Web of Science (WoS), Scopus, and Google Scholar, to identify relevant articles about the challenges of teaching Jawi among Islamic education teacher trainees. This process began with selecting key keywords related to the study's scope, such as "Jawi teaching," "Islamic education teacher trainees," "Jawi writing skills," and "teaching training," focusing on publications from 2016 to 2025 to ensure the relevance of the SLR findings. As a result, a total of 250 articles were retrieved through the initial search—50 from Web of Science, 50 from Scopus, and 150 from Google Scholar. All identified terms were then used to create a search string for querying the Web of Science and Scopus databases (see Table 1).

As a result of this initial phase, a total of 250 publications were successfully identified from all three main databases. However, this number was then carefully screened and analyzed to ensure that only articles that met the inclusion criteria and were directly related to the challenges of teaching Jawi script among Islamic Education Teacher Trainers (GPPI) were included in the final analysis of this study. All articles were selected and organized in accordance with PRISMA guidelines (Sanerma, 2024) to ensure a transparent, quality-focused, and systematic process.

Table 1

Search Keywords by database

Google Scholar	"Cabaran pengajaran jawi" AND ("guru pelatih pendidikan Islam" OR "pre-service Islamic teachers") AND ("pengajaran Pendidikan Islam" OR "pengajaran tulisan Jawi")
Scopus	(TITLE-ABS-KEY ("Jawi script" OR "Jawi writing" OR "Jawi literacy")) AND (TITLE-ABS-KEY ("Islamic education" OR "pre-service Islamic teachers" OR "Islamic teacher trainees")) AND (TITLE-ABS-KEY ("teaching challenges" OR "pedagogical barriers" OR "instructional problems"))
WoS	("Jawi script" OR "Jawi writing" OR "Jawi literacy") AND ("Islamic education" OR "Islamic teacher trainees" OR "pre-service Islamic teachers") AND ("teaching challenges" OR "instructional difficulties" OR "pedagogical issues")

Using the selected keywords, the article was searched across three main databases: Web of Science (WoS), Scopus, and Google Scholar. All of these databases were selected for their respective limitations.

Screening

Next, after the identification stage, out of the 250 articles found through searches in the Web of Science, Scopus, and Google Scholar databases, 150 were screened based on the relevance of the title, abstract, and study focus. Articles unrelated to the study's scope, such as those on health or on places called "Jawi" that lack educational significance, were removed. Additionally, articles that did not focus on trainee teachers or the context of Jawi-written PdPc were also excluded. In the end, 13 articles were selected for further analysis.

Table 2

Screening Process Schedule

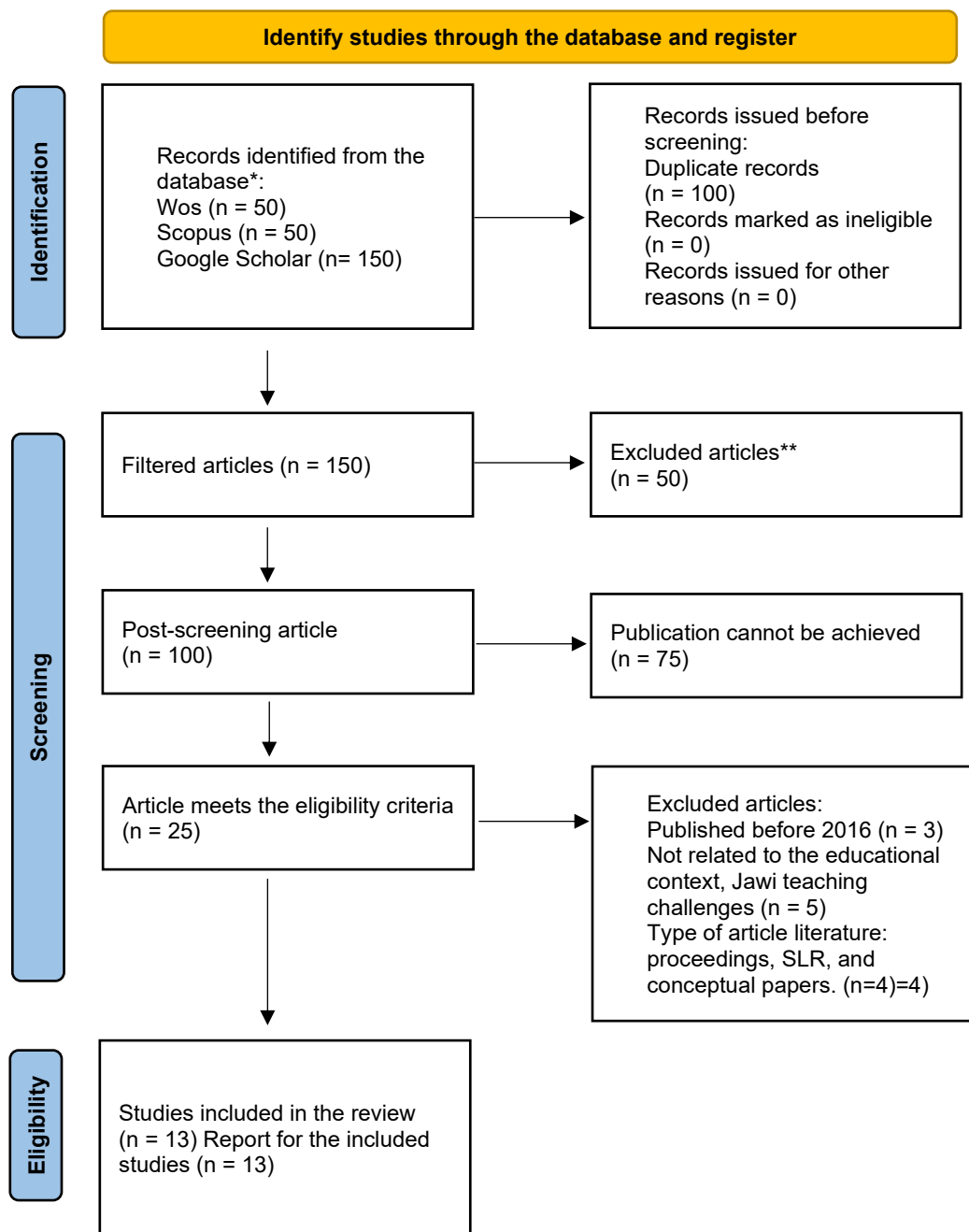
Criteria	Inclusion	Exclusion
Type of Language	Malay Language, English Language, Indonesian Language	Besides Malay, English, and Indonesian.
Time Period	Journals published between 2016 and 2024	Before 2016
Type of Literature	Journal articles related to the research topic and empirical studies	In addition to journal articles, such as proceedings, books, technical reports, theses, literature reviews, and SLR studies.
Index	Journals indexed in WoS, Scopus, and Google Scholar.	Journals not indexed in recognized databases.
Subject Area	Islamic Education, Sharia, Educational Technology, Social Sciences	Besides the field of Islamic education, or unrelated to Jawi teaching

Eligibility

Additionally, during the eligibility stage, all articles were carefully screened in detail to ensure they met the inclusion criteria established for this study. Articles eligible for analysis must be scholarly journal articles published between 2016 and 2025 in Malay, English, and Indonesian. Reasons for exclusion included articles unrelated to Islamic education, titles that did not focus on teaching Jawi script, and studies that did not directly address trainee teachers. Some articles were also excluded because they mentioned only “Jawi” as a place name and were not relevant to the context of formal education. Furthermore, several articles were excluded because full-text access was unavailable for a comprehensive review.

After this process, 13 articles were shortlisted for eligibility. Further assessment was conducted based on the full content of the articles to ensure their suitability with the objectives of this study. These articles were identified as highly relevant to the research problem, which concerns the challenges faced by Islamic Education Trainee Teachers (GPPI) in teaching Jawi. This selection enables more focused, in-depth qualitative analysis, providing a comprehensive overview of the issues studied and informing recommendations for improvements in Islamic teacher training.

The PRISMA 2020 Checklist is used for the latest systematic reviews that limit their searches to databases and registers only.



Quality Assessment

The selected reference articles in this study underwent a quality assessment process to ensure they meet the specified criteria, reduce bias, and identify articles that may have methodological weaknesses (Edward et al., 2019). In this assessment, two qualified evaluators in the fields of Islamic education and academia were chosen to review the accepted articles. These evaluators used the Mixed Methods Appraisal Tools (MMAT) recommended by Hong et al. (2018) to evaluate the articles, because this systematic literature review (SLR) includes articles from various study designs, including quantitative, qualitative, and mixed methods.

Quality assessment starts by examining two key criteria: first, is the research question clearly defined? Moreover, second, are the data collected able to answer the stated research question? Articles that meet both criteria will move on to the next stage, where they are sorted by research design (qualitative, quantitative, or mixed methods) and evaluated against five specific criteria relevant to that design. Each article is rated using three options: Yes, No, or Cannot Determine. This process ensures that each article undergoes careful evaluation, and only those that meet the criteria will be approved.

To ensure objectivity and accuracy in the assessment, both evaluators must reach a mutual agreement for each article reviewed. If there is disagreement, they will discuss each other's opinions until they reach a consensus. Out of the 25 articles assessed, 13 met at least three of the five criteria and were included in this study. One article (Suhana et al., 2016) was excluded because it did not meet the minimum criteria, especially concerning the research question.

Jadual 3: Article Evaluation

Basic criteria/study	Zetty Nurzuliana et al. (2023)	Wan Ali Akhbar et al. (2023)	Sri Kartika et al. (2022)	Mmuhammad Talhah et al. (2024)
Is the research problem clearly stated?	Y	Y	Y	Y
Is the data obtained sufficient to answer the stated research questions?	Y	Y	Y	Y
Qualitative Criteria				
Is the qualitative approach used appropriate to answer the research question?	Y	Y	Y	Y
Is the qualitative data collection methodology used sufficient to answer the research questions?	Y	Y	C	Y
Are the results obtained from the data sufficient?	C	Y	Y	Y
Can the interpretation of the study results be proven with data?	C	Y	Y	Y
Is there a continuity between the sources, collection, analysis, and interpretation of qualitative data?	Y	Y	Y	Y
Decision	Accepted	Accepted	Accepted	Accepted

Basic criteria/study	Nur Sahara et al. (2022)	Suhana et al. (2016)	Mohd Saifun Aznin et al. (2023)	Muhammad Fuad dan Hafizhah (2024)	Amrina Rasyada dan Nik Md Saiful Azizi (2021)	Hana Kniaz dan Olena Chukhno (2021)	Safrizal et al. (2021)	Norli et al. (2021)
Is the research problem clearly stated?	Y	Y	Y	Y	Y	Y	Y	Y
Is the data obtained sufficient to answer the stated research questions?	Y	Y	Y	Y	Y	Y	Y	Y
Quantitative Criteria								
Is the sampling strategy used relevant to answering the research question?	Y	C	Y	Y	Y	Y	C	C
Is the selected sample representative of the population being studied?	Y	C	Y	C	C	C	C	C
Is the measurement used appropriate?	Y	Y	Y	Y	Y	Y	Y	Y
Is the risk of nonresponse bias low?	C	C	C	C	N	C	C	C
Is the statistical analysis used appropriate to answer the research question?	Y	Y	Y	Y	Y	Y	Y	Y
Decision	Accepted	Not accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted

Basic criteria/study	Marliza et al. (2024)
Is the research problem clearly stated?	Y
Is the data obtained sufficient to answer the stated research questions?	Y
Mixed-method study	
Is there a reason for using mixed methods to answer the research question?	Y
Can these different research components be effectively combined to answer the research question?	Y
Are the combined qualitative and quantitative results interpreted correctly?	Y
Are the differences and inconsistent elements between quantitative and qualitative results handled well?	C
Do the different research components comply with the quality criteria for each study design involved?	Y
Decision	Accepted

Data Extraction

Data abstraction in this study was carried out manually and systematically using a thematic approach. After the eligibility process was completed, information from 13 eligible articles was analyzed and extracted into several main categories, including study title, authors' names, year of publication, study design, population or sample, and findings related to the challenges of teaching Jawi script. This method allows researchers to systematically identify patterns and key themes that emerge from the relevant literature. Each article was thoroughly examined to gather elements that directly contribute to understanding the issues of teaching Jawi among Islamic Education Teacher Trainees (GPPI) (Mohamed et al., 2021) and (Zulkifli & Tajuddin, 2023).

The thematic analysis revealed several recurring issues, including weaknesses in Jawi skills among Islamic Education Trainee Teachers (GPPI), a lack of teaching aids, and deficiencies in teacher training structures related to Jawi writing instruction (Nahar & Safar, 2016) and (Zainal Abidin, 2023). These findings served as the basis for identifying the themes in the research results section. Data abstraction also considered research methodologies, such as qualitative, quantitative, and mixed-methods designs, to understand previous research approaches better. This process ensures that only relevant and high-quality information is included in the analysis, aligned with the research objectives and the needs of rigorous systematic research (Rahman et al., 2022).

Table 4

Theme

Article	Article Title	Design	Theme	
			Trainer Teacher Readiness Stage	Challenges in teaching Jawi
1	Cabaran dan peranan dalam memperkasakan pembelajaran Jawi semasa pandemik COVID-19	QN		/
2	Cabaran Pengajaran Bidang Sirah bagi Guru Pelatih Pendidikan Islam	QL		/
3	Pembingkaian Akhbar Online Mengenai Isu bantahan pembelajaran tulisan jawi di sekolah vernakular di malaysia.	QN		/
4	Pendekatan Intervensi Murid Tercicir bagi Subjek Jawi di Sekolah Rendah Agama Negeri Selangor: kajaian rintis	QL	/	/
5	Pendekatan Intervensi Murid Tercicir bagi Subjek Jawi di Sekolah Rendah Agama Negeri Selangor: kajaian rintis	QL	/	
6	Statistik Penguasaan Jawi Dalam Kalangan Murid Sekolah Rendah Agama	QN	/	
7	Tahap Penguasaan Tulisan Jawi Dalam Kalangan Pelajar Pintar	QN	/	
8	Exploring the Issues of Primary School Students' Mastery of Jawi and the ICT Solution	MX	/	/
9	Improved Classification of Handwritten Jawi Script Based on the Main Part of Script Body	QN	/	/
10	The Knowledge of Content Level of Jawi among Islamic Education Teachers Keramat District, Primary Schools	QN	/	/
11	Jawi Writing in Al-Quran and Al-Sunnah Subject at Secondary School: Issues and Challenges	QN	/	/
12	English Trainee Teachers' Perspective on Soft Skills in Ukraine	QN	/	/
13	The Role of Education in the Development of Jawi in Brunei Darussalam	QL	/	/

QN-Quantitative

QL-Qualitative

MX- Mix Method

Findings

Background of Selected Studies

Before discussing the main findings, it is important to outline the background of the selected studies included in this Systematic Literature Review (SLR). A total of 13 articles published between 2016 and 2024 were analyzed, reflecting the continuous development of research on the teaching and learning of the Jawi script, particularly within the context of Islamic Education teacher training. The distribution of publications indicates a growing scholarly interest, with one article published in 2016, one in 2019, two in 2021, two in 2022, three in 2023, and four in 2024. This trend demonstrates an increasing focus on Jawi instruction, especially in relation to trainee teachers and school students.

In terms of publication sources, the selected articles were drawn from a variety of indexed journals related to Islamic education, pedagogy, and teacher training. These include regional journals such as the Journal of Islamic Education, Journal of Language Studies, and Indonesian Journal of Islamic Education, as well as internationally indexed journals in Scopus and Web of Science. This diversity highlights that the issue of Jawi instruction is not only examined in local contexts but also receives attention at the international level, particularly in relation to cultural heritage and Islamic pedagogy.

Collectively, these studies contribute to a comprehensive understanding of Jawi instruction by addressing multiple dimensions, including instructional readiness, pedagogical approaches, teaching aids, and classroom challenges. For instance, Zetty Nurzuliana et al. (2023) highlighted the effectiveness of targeted interventions and contextual approaches, such as the use of visual materials and digital applications, in improving students' Jawi literacy. Similarly, Mohd Saifun et al. (2024) found that Jawi instruction supported by motivational elements and value-based approaches can strengthen students' Islamic identity. Overall, these studies provide a strong empirical foundation for examining the readiness and challenges faced by Islamic Education trainee teachers in teaching Jawi.

Main Findings

The findings of this study are synthesised into two main themes, namely (i) the readiness of Islamic Education trainee teachers (GPPI) in teaching Jawi and (ii) the challenges encountered in the implementation of Jawi instruction.

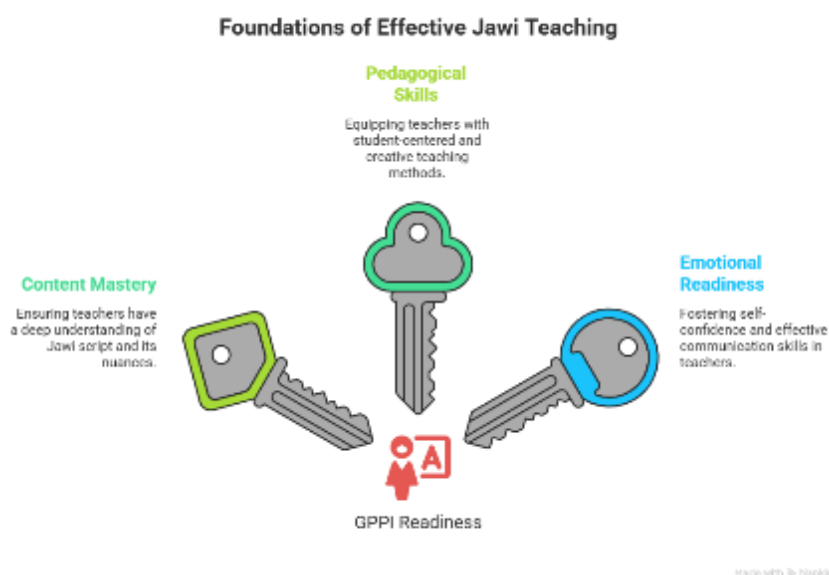
Theme 1: Readiness of Islamic Education Trainee Teachers in Teaching Jawi

The readiness of Islamic Education trainee teachers (GPPI) in teaching Jawi is multidimensional, encompassing content knowledge, pedagogical competence, and psychosocial readiness. Ahmad Tajuddin and Zulkifli (2024) reported that trainee teachers generally possess adequate foundational knowledge of Jawi, particularly in understanding basic structures. However, they still require deeper exposure to more complex aspects such as letter variations, spelling systems, and effective instructional strategies.

In addition, pedagogical competence plays a crucial role in determining the effectiveness of Jawi instruction. Rajikal and Hamzah (2022) emphasised the importance of equipping trainee teachers with student-centred approaches and interactive teaching strategies. Without strong pedagogical skills, trainee teachers may struggle to engage

students and adapt teaching methods to diverse learning needs, particularly when teaching a subject perceived as challenging.

Beyond cognitive and pedagogical aspects, psychosocial readiness is also essential. Kniaz and Chukhno (2021) highlighted that soft skills such as communication, confidence, and classroom management are critical components of teacher effectiveness. Therefore, teacher training programmes should adopt a holistic approach to ensure that trainee teachers are well-prepared to address real classroom situations and challenges.



Theme 2: Challenges in the Implementation of Jawi Teaching

The findings also reveal several significant challenges faced by Islamic Education trainee teachers in teaching Jawi. One of the primary challenges is students' low mastery of the Jawi script. Suhana et al. (2016) found that many students lack basic reading and writing skills in Jawi, which forces trainee teachers to adjust their instructional strategies according to varying levels of student ability. This situation not only affects teaching effectiveness but also complicates lesson planning and time management.

Another major challenge is the limitation of teaching resources and exposure to modern instructional methods. Nor Sahara et al. (2022) reported that trainee teachers often lack access to digital and interactive teaching materials, resulting in continued reliance on traditional approaches such as lectures and repetitive writing exercises. These limitations hinder efforts to create engaging and effective learning environments, particularly in line with 21st-century educational expectations.

Furthermore, students' attitudes towards Jawi present an additional barrier. Zetty Nurzuliana et al. (2023) found that students often perceive Jawi as difficult and less relevant, leading to low motivation and participation in learning activities. This requires trainee teachers to adopt more creative and innovative teaching strategies to enhance student engagement and appreciation of Jawi as both a cultural heritage and a medium of Islamic knowledge. Addressing these challenges is therefore essential in improving the overall effectiveness of Jawi instruction.

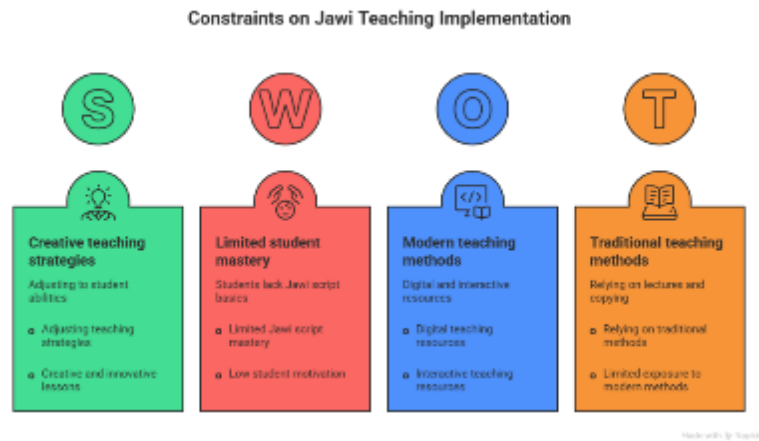


Table 3

List of Research Articles

Researcher and Year	Article Title	Research Purpose	Research Methods and Sample	Research Findings
Nor Sahara Mesman et al. (2022)	Cabaran dan peranan dalam memperkakan pembelajaran Jawi semasa pandemik COVID-19	- Identify the challenges faced by parents in their children's mastery of Jawi during the Movement Control Order (MCO). - Identify the roles played by parents in their children's mastery of Jawi during the MCO. - Determine the significant relationship between the implementation, roles, and challenges faced by parents regarding their children's mastery of Jawi during the MCO.P	- The study design is descriptive and quantitative. Data collection involved a 30-item questionnaire focused on the implementation, roles, and challenges parents face in helping children learn Jawi. - A Likert scale was used, ranging from 1 (strongly disagree) to 5 (strongly agree). - The study sample consisted of 150 parents randomly selected. - The questionnaire was distributed through	- The implementation of Jawi learning during the Covid-19 pandemic was at a high level, with an overall mean score of 4.3. - The role of parents in Jawi learning was also high, with an overall mean score of 4.4. - The challenges faced by parents were at a high level, with an overall mean score of 3.9. - There is a significant relationship between implementation ($r = 0.775$, $p < 0.005$), role ($r = 0.341$, $p < 0.005$), and challenges ($r = 0.390$, $p < 0.005$) with children's

			Google Forms and shared via WhatsApp.	mastery of Jawi learning.
Muhammad Talhah Ajmain et al. (2024)	Cabaran Pengajaran Bidang Sirah bagi Guru Pelatih Pendidikan Islam	This study aims to identify and describe the challenges faced by Student Teachers of Islamic Education (STIE) in teaching the Sirah subject, as well as to suggest methods to overcome these challenges to improve the quality of teaching and facilitation within the Islamic Education curriculum.	The study used a qualitative approach with data collection techniques through semi-structured interviews. Data were obtained from 30 respondents who are Islamic Education teacher trainees, mostly women (66.7%) and the remaining men (33.3%).	- The main challenges identified include students' weak understanding of Jawi script, students' acceptance of the delivery method, lack of knowledge and understanding among teachers, and a shortage of interactive teaching aids. - Proposed methods to overcome these challenges include using examples or role models of Islamic figures, referring to sources beyond textbooks, diversifying delivery methods such as question-and-answer sessions, quizzes, videos, and exploration activities, and providing brief notes in Latin script to help students remember key points. - Other challenges include less effective delivery, limited exposure to Sirah topics, and issues with long teaching durations.

Norli Yusuf et al. (2021)	Pembingkaian Akhbar <i>Online</i> Mengenai Isu Bantahan pembelajaran tulisan Jawi di sekolah vernakular di Malaysia.	This study aims to examine how online newspapers in Malaysia frame reports denying the learning of Jawi script in vernacular schools and to identify the differences in news framing between Berita Harian Online and Malaysiakini.com. The goal is to understand how the media portrays important issues related to education and unity through their news framing.	The study used a quantitative analysis method with content analysis to assess news framing. The sample consisted of 24 news reports on Jawi script protests in vernacular schools, published over two months (November and December 2019) by two online newspapers, Berita Harian Online and Malaysiakini.com, each contributing 12 reports (50%).	- The five generic frames (conflict, impact/consequence, responsibility, values, and human interest) are used by both newspapers. - The economic impact frame is the most prominent in the news coverage of both newspapers, followed by the human interest frame. - Berita Harian Online uses the responsibility frame less. - The media focuses on the impact of issues on the media's economy, making the economic impact the main focus over other, more appropriate frames.
Zetty Nurzuliana Rashed et al. (2023)	Pendekatan Intervensi Murid Tercicir bagi Subjek Jawi di Sekolah Rendah Agama Negeri Selangor: Kajian Rintis	- Exploring the factors contributing to student dropout rates at the Religious Primary School (SRA) related to mastery of the Jawi subject. - Investigating the intervention approaches used by SRA teachers to address the	- The design of the qualitative study used semi-structured interview methods and document analysis (student achievement in Jawi assessment tests). - A pilot study was conducted at two selected SRA schools	- The four main factors that cause students to fall behind in mastering Jawi are: i) lack of internet access, ii) lack of devices, iii) lack of interest in the Jawi subject, and iv) lack of parental support. - Teachers implement intervention strategies such as remedial

		dropout issue. Identifying the steps taken by the school to help students overcome difficulties in mastering the Jawi script.	representing nine districts in Selangor. - The study participants were two teachers who teach the Jawi subject at the schools. - Data were analyzed using a thematic approach with NVivo 19.	classes and screening tests to help students who have fallen behind regain proficiency in Jawi writing. The study also highlights the need for a more structured intervention approach and support from all parties to reduce the failure rate in the Jawi subject.
Wan Ali Akhbar et al. (2023)	Penerokaan terhadap Pengetahuan yang digunakan oleh Guru Inovatif Pendidikan Islam untuk menghasilkan Inovasi Pengajaran.	To explore the knowledge used by innovative teachers when producing innovations in Islamic Education teaching.	- The study was conducted qualitatively using a case study approach. - Data were collected through semi-structured interviews and document analysis, including images, proposal papers, innovation reports, buntings, banners, and pamphlets. - Eight innovative Islamic Education teachers were selected through purposive sampling based on four criteria: teaching Islamic Education in secondary schools,	- There are 12 types of knowledge used by innovative teachers in producing teaching innovations, namely: content and curriculum, pedagogy, action research, existing innovations, innovation design, experience, interests and personal strengths, creative skills, knowledge about students and communication skills, collaboration skills, and examination format knowledge. - These 12 types of knowledge are categorized into 5 forms of knowledge: pedagogical content

			producing innovations, winning innovation competitions, and being approachable and cooperative. The validity and reliability of the study were ensured through data and source triangulation, an 18-month fieldwork period, and the Kappa value with an expert interrator.	knowledge, special cognitive skills, specific competency development, social skills, and research skills. This knowledge is acquired through various methods such as reading, consulting experts, attending courses and workshops, and personal experience in improving innovations.
Suhana Abd Hamid et al. (2016)	Statistik Penguasaan Jawi Dalam Kalangan Murid Sekolah Rendah Agama	This study was conducted to review the students' proficiency in Jawi script (through reading and writing skills) and to identify the causes of the decline in Jawi proficiency among primary school students in religious schools.	- Method: Quantitative with a descriptive approach in the form of a survey using questionnaires . - Sample: 100 third-grade students from 10 religious schools in Zone 2, Pasir Gudang, were selected as respondents. - Research Instrument: A modified questionnaire form according to the research objectives, distributed with the assistance of school teachers. - Data Analysis: Using SPSS	Overall, students' mastery of Jawi script through reading and writing is at a moderate level. This means students have a moderate level of proficiency in Jawi, but the study also identifies factors contributing to the decline in their mastery.

			version 15.0 software to calculate frequency, percentage, and mean scores of the questionnaires , as well as categorizing scores using a three-point Likert scale (low, moderate, high).	
Mohd Saifun Aznin Mohd Sharif et al. (2024)	Tahap Penguasaan Tulisan Jawi Dalam Kalangan Pelajar Pintar Cerdas	- Identify the level of mastery of Jawi script among smart and talented Form 4 students at Kolej PERMATA@PINTAR UKM. - Analyze the relationship between mastery of Jawi and students' achievements in Islamic Education.	- The study used a survey method with a quantitative approach. - The research instruments included an essay writing skills test and a questionnaire about students' backgrounds and their achievements in Islamic Education. - The sample consisted of 64 Form 4 students at PERMATA@PINTAR UKM College.	- The mastery of Form 4 students in Jawi writing is very good. - There is a significant relationship between mastery of Jawi and students' achievement in Islamic Education. - Jawi notes show a very significant influence on overall academic performance for both genders. - The Jawi Integration assignment and the total subject scores (BM+SEJ+PAI) also correlate significantly, but with a lower influence compared to Jawi Notes. - TASMI has a significant correlation, but its influence is smaller compared to other variables.

Marliza Abdul Malik et al. (2023)	<i>Exploring the Issues of Primary School Students' Mastery of Jawi and the ICT Solution</i>	Examining the issue of Jawi script mastery among primary school students and exploring solutions using information and communication technology (ICT) to improve that mastery.	The study using a mixed methods approach involved literature analysis, questionnaires distributed to parents of Year 1 to 3 students in religious primary schools, and interviews with three teachers in religious schools to gather their views on Jawi proficiency and the use of ICT learning media.	- There are various issues in mastering Jawi, including difficulties in reading and writing. - The use of ICT-based learning media, such as applications and online platforms, helps make Jawi learning more effective, engaging, and easily accessible to students. - ICT increases student engagement and interest in learning Jawi, thereby improving their mastery.
Safrizal Razali et al. (2023)	<i>Improved Classification of Handwritten Jawi Script Based on Main Part of Script Body</i>	This study aims to improve the classification of Jawi handwritten characters by focusing on the main body features of the characters using Support Vector Machine (SVM) techniques and decision rules to enhance the success rate of Jawi character recognition.	Method: Using an SVM classification approach by grouping Jawi characters into 15 and 19 classes based on the main shape of the characters without considering punctuation marks such as dots and holes. The main features are extracted using the Freeman Chain Code (FCC) and refined using decision rules based on the positions and numbers of dots and holes	- Classification using SVM with grouping into 15 classes achieved an accuracy rate of 84.21%. - After applying decision rules based on the position of points, the number of points, and holes, the accuracy rate increased to 92.86%. - The average classification success rate for all tests is approximately 87.14%. - Grouping based on the main shape of the characters without considering

			in the characters. Samples: A dataset of handwritten Jawi characters that have been processed with specific features (vector lengths 350, 400, 500) for training and testing the SVM model. The exact number of samples is not explicitly stated in the document, but testing was conducted on the grouped character classes.	punctuation marks resulted in an accuracy rate of about 81.58% for 19 classes. In summary, the use of additional decision rules on the SVM classification results can significantly improve the recognition performance of handwritten Jawi characters.
Muhammad Fuad dan Hafizhah Zulkifli (2024)	<i>The Knowledge of Content Level of Jawi among Islamic Education Teachers Keramat District, Primary Schools.</i>	This study was conducted to identify the level of content knowledge (CK) of Jawi script among Islamic Education Teachers (IETs) at primary schools in the Keramat District.	- This study design is quantitative, using a survey method with a questionnaire as the data collection instrument. - The questionnaire contains two main constructs: curriculum knowledge and subject knowledge, measured on a 5-point Likert scale. - The instrument has been validated for content validity (CVI = 0.98) and	- The study findings indicate that the level of knowledge about the Jawi script curriculum among teachers is at a high level, with an overall mean score of 4.20 (SD = 0.46). - The highest item relates to the importance of teaching Jawi script clearly (M = 4.54), while the lowest item concerns sufficient mastery of Jawi for teaching in primary schools (M = 4.02). - All items received high mean scores,

			reliability (Cronbach's alpha for the curriculum knowledge construct = 0.94, and for the subject knowledge construct = 0.95). The study sample consists of 50 Islamic Education teachers from six primary schools in the Keramat District, Kuala Lumpur.	indicating that teachers have a good level of knowledge regarding the Jawi script curriculum.
Amrina Rasyada dan Nik Md Saiful Azizi (2021)	<i>Jawi Writing in Al-Quran and Al-Sunnah Subject at Secondary School: Issues and Challenges</i>	- Identify issues and challenges in Jawi writing in secondary schools. - Understand students' performance in the Quran and Sunnah subject. - Determine students' achievement levels in Jawi writing. - Study the relationship between students' achievement in Jawi writing and their performance in the Quran and Sunnah subject.	- Using a quantitative method with the distribution of questionnaires (surveys) to students. - A Jawi writing test was conducted to assess students' achievement. - Interviews were conducted with experienced teachers who teach the related subjects to support the data. - The study sample consisted of Form 4 and 5 students from four secondary schools in Bachok that offer Quran	- There are ongoing issues and challenges in Jawi writing if all parties take no serious action. - The skills of reading and writing Jawi depend on the students' mastery level as well as the teachers'. - The J-QAF program implemented in primary schools is seen as a key catalyst for learning Jawi writing. - The use of Jawi script in secondary education is limited and receives less attention compared to Rumi script. - Various suggestions

			and Sunnah subjects.	have been made to encourage the use and writing skills of Jawi, including activities such as Jawi writing weeks and spelling and writing competitions to strengthen students' skills.
Hanna Kniaz dam Olena Chukhno (2021).	<i>English Trainee Teachers' Perspective on Soft Skills in Ukraine</i>	- Investigating the relationship between soft skills included in teacher professional training and English language teacher trainers' views on the development of soft skills at the university. - Addressing the questions: (a) How do teacher trainees assess their soft skills? (b) How much attention do lecturers give according to students' perspectives? (c) Is there a gap between lecturers' efforts and trainees' expectations in the development of soft skills?	- Method: Quantitative study using an online questionnaire (Google Forms) with closed-ended questions to assess soft skills and lecturer attentiveness. - Sample: 153 English teacher trainers from the second to fourth year at the Faculty of Foreign Philology, H.S. Skovoroda Kharkiv National Pedagogical University, Ukraine. Aged 18-22 years, 24 males and 129 females.	- The majority of students rate their soft skills at a moderate (intermediate) or high level, such as communication and listening skills. - However, a large number of teacher trainers feel that lecturers pay insufficient or almost no attention to the development of certain soft skills, such as teamwork, self-expression, and attitudes of tolerance. - There is a gap between the expectations of teacher trainees and the efforts of lecturers in developing these soft skills, indicating the need for improvements in teaching methodologies and soft skills development at universities.
Sri Kartika A.	<i>The Role of Education in</i>	This study aims to review	This study uses a	Education plays an important

Rahman et al. (2022)	<i>the Development of Jawi in Brunei Darussalam</i>	the role of education in the development and preservation of Jawi script in Brunei Darussalam, as well as to understand how teaching Jawi can elevate the nation's cultural heritage and strengthen the Malay-Islamic identity in the country.	qualitative approach with analysis of written materials and documents, including curricula, works of scholars, official royal decrees, and previous studies on Jawi script teaching in Brunei. There is no collection of quantitative data or direct involvement of respondents; instead, the research is based on a literature review and historical documents.	role as the main medium in fostering mastery and understanding of Jawi script among the Brunei community. • Jawi script is closely associated with Islamic and Malay elements that serve as the national identity that must be preserved. • Jawi instruction in schools still maintains the objective of elevating the script as a cultural heritage and a symbol of the country's identity. • The roles of scholars and religious figures have also successfully advanced the writing and dissemination of Jawi through their works and teachings. • Although there are challenges, such as the attitudes of the younger generation towards Jawi, efforts to strengthen Jawi spelling and teaching continue as an effort to preserve this tradition.
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DISCUSSION

This section discusses the findings of the study in relation to existing literature, with a focus on explaining the underlying factors influencing the readiness and challenges of Islamic Education trainee teachers (GPPI) in teaching Jawi.

Readiness of Islamic Education Trainee Teachers in Teaching Jawi

The findings indicate that the readiness of Islamic Education trainee teachers (GPPI) remains at a moderate level, particularly in terms of content mastery and pedagogical competence. This is consistent with previous studies which reported that trainee teachers possess basic knowledge of Jawi but lack deeper understanding of complex structures and effective instructional strategies (Ahmad Tajuddin & Zulkifli, 2024). Similarly, Suhana et al. (2016) highlighted that limited mastery of foundational Jawi skills not only affects students but also indirectly reflects the instructional limitations of teachers.

The persistence of this issue can be attributed to the structure of teacher training programmes, which often emphasise theoretical knowledge over practical application. As a result, trainee teachers may understand the content but struggle to translate that knowledge into effective classroom practices. This aligns with Rajikal and Hamzah (2020), who emphasised that pedagogical competence, particularly in applying student-centred approaches, remains a key challenge among trainee teachers. The inability to implement strategies such as collaborative learning and higher-order questioning suggests a gap between pedagogical theory and classroom practice.

Furthermore, the findings also reveal that trainee teachers' readiness is influenced by their level of exposure to real classroom environments. Limited teaching experience may reduce their confidence and adaptability when dealing with students of varying abilities. This supports the argument by Zetty Nurzuliana et al. (2023) that teaching effectiveness is closely related to the teacher's ability to adapt strategies based on students' needs and learning contexts.

In terms of technology integration, the findings are in line with studies by Arif and Aziz (2023) and Yusoff et al. (2023), which indicate that although digital tools have the potential to enhance Jawi instruction, their utilisation among trainee teachers remains limited. This may be due to insufficient training in integrating ICT into subject-specific teaching, particularly within Islamic Education. The lack of confidence and skills in using digital tools suggests that current training programmes may not adequately prepare trainee teachers for technology-enhanced teaching environments. Therefore, the moderate level of readiness observed can be explained by gaps in practical training, limited exposure to technology integration, and insufficient emphasis on pedagogical application.

Challenges in the Implementation of Jawi Teaching

The findings also highlight several persistent challenges in the implementation of Jawi teaching, particularly related to students' low mastery, limited teaching resources, and negative attitudes towards Jawi. These findings are consistent with previous studies, which have repeatedly identified weak foundational skills among students as a major barrier in Jawi instruction (Suhana et al., 2016; Mohd Saifun et al., 2024). This issue occurs because many

students are introduced to Jawi at an early stage but do not receive continuous reinforcement, leading to gaps in their literacy development.

The need for trainee teachers to revisit basic skills during lessons limits the use of higher-level and interactive teaching strategies. This supports the findings of Naquiah and Jimaain (2016), who argued that weak foundational knowledge constrains the implementation of more meaningful and engaging pedagogical approaches. As a result, teaching becomes more remedial in nature rather than developmental, which may affect students' long-term interest and achievement.

Another significant challenge relates to the lack of teaching aids and technological resources. The findings align with Nor Sahara et al. (2022), who reported that trainee teachers faced difficulties in conducting effective online Jawi lessons due to limited access to digital materials and insufficient training. This situation can be explained by the rapid transition to digital learning environments during the pandemic, which many teachers were not adequately prepared for. Even in face-to-face settings, reliance on traditional teaching aids such as whiteboards limits opportunities for interactive learning, as noted by Naquiah and Jimaain (2016).

Additionally, students' negative perceptions of Jawi as a difficult and less relevant subject continue to hinder effective teaching and learning. This is consistent with findings by Kamaruzaman and Abdullah (2021) and Zetty Nurzuliana et al. (2023), which indicate that low motivation and lack of interest are significant barriers. This phenomenon may be influenced by the dominance of the Rumi script in daily communication and the perception that Jawi has limited practical application in modern contexts. Consequently, students may not see the relevance of mastering Jawi, which affects their engagement in the classroom.

These challenges suggest that the effectiveness of Jawi instruction is not solely dependent on teacher readiness but is also shaped by broader systemic and contextual factors, including curriculum design, resource availability, and students' attitudes. Therefore, addressing these challenges requires a comprehensive approach that includes strengthening teacher training, improving resource provision, and enhancing the perceived relevance of Jawi in contemporary education.

Implications of the Study

The findings of this study provide several important implications for practice, policy, and future research. From a practical perspective, teacher training institutions should strengthen their programmes by emphasising the integration of pedagogical skills, technological competence, and soft skills development. Training should be more practice-oriented, allowing trainee teachers to engage in real classroom simulations and develop adaptive teaching strategies to address diverse student needs, particularly in Jawi instruction.

From a policy perspective, there is a need for closer collaboration between the Ministry of Education Malaysia (KPM) and higher education institutions to redesign teacher training frameworks that are aligned with current educational demands. Policies should support the provision of adequate teaching resources, including digital tools and interactive materials, to enhance the effectiveness of Jawi teaching. Additionally, efforts should be made

to reposition Jawi as a relevant and meaningful component of Islamic education to improve students' motivation and engagement.

In terms of research implications, future studies should focus on developing and evaluating intervention-based approaches, such as technology-enhanced learning tools, creative pedagogical models, and mentoring programmes for trainee teachers. Further research is also needed to explore the long-term impact of teacher readiness on students' mastery of Jawi, particularly through longitudinal and mixed-methods studies.

Motivation and Contribution

The motivation for this study stems from increasing concern over the declining effectiveness of Jawi instruction, despite its crucial role in preserving Islamic and Malay heritage. Although numerous studies have examined issues related to Jawi learning, most primarily focus on students' performance or general teaching challenges, with limited attention given to the readiness of Islamic Education trainee teachers. This gap is particularly significant, as trainee teachers are future educators responsible for sustaining Jawi literacy and cultural identity. Additionally, the growing demands of 21st-century education, including technology integration and student-centred pedagogy, raise questions about whether current teacher training programmes adequately equip trainee teachers with the necessary competencies. Therefore, this study is driven by the need to systematically examine both the level of readiness and the challenges faced by trainee teachers in order to provide a more comprehensive understanding of Jawi instruction.

This study contributes to the existing body of knowledge by providing a comprehensive and integrated synthesis of the literature on trainee teachers' readiness and challenges in teaching Jawi. Unlike previous studies that address these aspects separately, this research combines both dimensions within a single analytical framework, offering a more holistic perspective on the issue. In addition, the use of a Systematic Literature Review (SLR) guided by the PRISMA framework ensures methodological rigour, transparency, and reliability in the selection and analysis of studies. The findings also offer practical implications for improving teacher training programmes by emphasising the importance of pedagogical skills, technological integration, and real classroom exposure. Moreover, this study provides valuable insights for policymakers and educators to enhance the effectiveness of Jawi instruction, particularly in the Malaysian Islamic education context.

Conclusion

This study systematically examined the readiness and challenges of Islamic Education trainee teachers in teaching the Jawi script through a Systematic Literature Review approach. The findings indicate that trainee teachers possess a moderate level of readiness, particularly in terms of content knowledge, pedagogical competence, and technological integration. However, their effectiveness is constrained by several challenges, including students' low mastery of Jawi, limited teaching resources, and negative student attitudes towards learning Jawi.

These findings highlight that improving Jawi instruction requires a comprehensive approach that goes beyond enhancing teacher readiness alone. Systemic factors such as

curriculum design, resource availability, and students' perceptions must also be addressed to ensure meaningful and effective learning outcomes.

This study contributes to the existing literature by providing a focused and integrated understanding of both readiness and challenges in Jawi instruction from the perspective of trainee teachers. The findings offer valuable insights for improving teacher training programmes and strengthening the role of Jawi as an important component of Islamic and cultural education in Malaysia. Overall, this study underscores the need for continuous innovation in pedagogical practices and the integration of technology to ensure that Jawi instruction remains relevant, engaging, and effective in the context of 21st-century education.

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