



Instructional Innovation in Tahfiz Education: A Study on the Use of Flip Card Maqra' (FCM)

Nor Aisah Abu Samah¹  and Syafawati Salihan² 

¹ Sultan Salahuddin Abdul Aziz Shah Polytechnic, 40150 Shah Alam, Selangor, Malaysia

² Tenaga Nasional University, 43000 Kajang, Selangor, Malaysia

noraisah@psa.edu.my

Abstract. Tahfiz education has traditionally emphasized talaqqi, repetition and continuous *muraja'ah* practices to ensure the accuracy and retention of Quran memorization. However, many students continue to experience difficulties in organizing memorization systematically, particularly when dealing with *mutasyabihat lafdzi* verses and structured revision activities. Despite the increasing use of digital applications in tahfiz learning, limited attention has been given to the development of structured physical instructional materials that complement traditional memorization practices. Therefore, this study aims to introduce and evaluate the Flip Card Maqra' (FCM) as an instructional innovation designed to support Quran memorization learning through maqra' based content organization and portable learning support. This study employed a Research and Development (R&D) approach comprising four phases, namely needs analysis, instructional design, product development and product evaluation. The usability evaluation involved 48 tahfiz students from Darul Quran JAKIM, Universiti Tenaga Nasional (UNITEN) and Institute al-Quran Darul Aman (IQDAR). Data was collected using a structured questionnaire and analyzed descriptively. The findings indicate high levels of user acceptance in terms of product clarity (86%), suitability (75%) and usability during learning sessions (89%). Respondents perceived that the structured maqra' segmentation, portable format and emphasis on *mutasyabihat lafdzi* verses supported memorization and revision activities more systematically. The novelty of this study lies in the integration of traditional tahfiz memorization principles with contemporary instructional design through a structured physical learning tool. The study concludes that FCM demonstrates potential as a practical instructional aid that supports more organized, flexible and engaging Quran memorization practices in contemporary tahfiz education.

Keywords: Tahfiz Education, Instructional Innovation, Quran Memorization, Flip Card Maqra' (FCM), Maqra' Based Learning

1 Introduction

Quranic memorization is a disciplined pedagogical tradition within Islamic education that prioritizes accuracy and retention through time honored practices such as *talaqqi* (face to face transmission) and *musyafahah* (direct oral articulation) [1]. To maintain

the quality of memorization, institutions such as Darul Quran JAKIM have adopted the maqra' segmentation approach, which systematically organizes the Quran into manageable sections.

From an instructional design perspective, the effectiveness of such organized materials is supported by Cognitive Load Theory, which suggests that structured typography and typesetting minimize extraneous mental effort, thereby enhancing schema acquisition and retention [2, 3]. Furthermore, research into the "physics of diagrams" emphasizes that pragmatic clarity in visual design not only improves learning outcomes but also sustains student motivation [4]. High quality visual elements, including specific font styles and complementary colors, are essential to highlight critical information without causing cognitive distraction [5].

While traditional methods remain fundamental, contemporary tahfiz education faces significant challenges in sustaining long term retention. Students frequently encounter obstacles such as *mutasyabihat lafdzi* verses with similar wording which are a primary source of confusion and errors during recitation [6]. Many learners struggle with ineffective repetition systems and a lack of structured revision aids, often exhibiting only moderate levels of repetition [7, 8].

Recent academic efforts have pivoted toward digital innovations, including smartphone applications and gamified platforms, to modernize the learning experience [7]. However, as identified in the present study, most existing research focuses predominantly on online tools, leaving a critical gap in the development of structured physical instructional materials. Despite the proven practical benefits of the maqra' segmentation approach used by institutions like Darul Quran, this approach has rarely been translated into dedicated, portable physical tools that can complement the traditional *mushaf* in both formal and independent learning settings.

This study addresses the gap by introducing the Flip Card Maqra' (FCM) as an innovative instructional tool. The FCM is a portable, structured physical tool that organizes Quranic verses into eight maqra' segments per juzuk and specifically highlights *mutasyabihat lafdzi* verses to improve memorization efficiency. To evaluate its usability, a survey was conducted with 48 respondents from Darul Quran JAKIM, Institute al-Quran Darul Aman (IQDAR) and Universiti Tenaga Nasional (UNITEN).

Furthermore, the development of FCM, which is formally registered under Copyright Notification CRLY2024W08819, aligns with the National Tahfiz Education Policy and the Tahfiz TVET framework by bridging traditional spiritual discipline with modern, systematic instructional design [9]. This paper details the design, pedagogical principles and usability evaluation of the FCM as a sustainable innovation for tahfiz education.

2 Research Objectives

- 2.1 To detail the design, maqra' based segmentation and pedagogical application of the Flip Card Maqra (FCM) as an instructional tool in tahfiz education.
- 2.2 To evaluate the usability of the FCM among tahfiz teachers and students, specifically focusing on its ease of use, influence on learning motivation, engagement and suitability for memorization tasks.
- 2.3 To explore the potential impact of FCM as an instructional innovation in supporting Quranic memorization.

3 Literature Review

3.1 Traditional Tahfiz Memorization Techniques

Tahfiz al-Quran learning traditionally emphasizes structured memorization techniques to facilitate retention and accuracy among students [1, 10]. These include setting memorization targets, practising *tikrar* (repetition), using a specific *mushaf*, maintaining a moderate recitation voice, applying rhythmic intonation, focusing on *mutasyabihat* verses [6, 11] segmenting memorization into groups of five verses and visualising Quranic verses through mental mapping [8]. A preliminary study identified commonly practised techniques such as *talaqqi*, *musyafahah*, *tikrar*, *tadarus*, *sema'an* (listening), *tasmi'*, *tashil*, *tarkiz*, *tafaqquh* (understanding verse context), *muraja'ah* (reciting and reviewing), *taffahum* and *kitabah* (writing verses) [1, 10]. These techniques provide the pedagogical foundation for analysing memorization practices and directly inform the design principles of the FCM by ensuring it aligns with established cognitive and instructional methods [1].

3.2 Technology Integration in Tahfiz Education

Recent studies highlight the growing role of digital innovation in enhancing tahfiz teaching and learning [10] demonstrated that information technology can make tahfiz learning more effective and engaging by aligning instructional methods with contemporary educational needs [12] examined blended learning approaches at UNITEN, showing the use of platforms like Moodle, PowToon and YouTube to support material dissemination, continuous assessment and interactive activities. Similarly, Mardhiah Yahya developed an ICT based tahfiz teaching model that integrates digital components to promote systematic and innovative teaching strategies. These studies inform the usability and engagement criteria for FCM, suggesting that instructional innovations should be accessible, motivating and adaptable to both teachers and students. Furthermore, Akbari et al. typologized various mobile applications for al-Quran memorization

such as Tahfidzul Quran Media, EzHifz and e-Hafazan, which integrate multisensory elements including text, audio and visuals to facilitate independent learning and retention principles that can be incorporated into the FCM design and application [13].

3.3 Innovative Instructional Approaches: Gamification and Engagement

Interactive instructional strategies such as gamification have been shown to increase student motivation and engagement in Quran memorization [7, 13]. Zainora Daud et al. developed the Global Tahfiz Game (GTG), a physical board game based tool, which elicited positive perceptions with high usability scores from students (mean 4.45) and teachers (4.85), thereby enhancing participation and performance in Quranic revision activities [7]. These findings highlight the value of engagement focused instructional innovations and support the evaluation of FCM's potential impact on learning motivation and student involvement. GTG's interactive, tangible format provides a useful comparison for assessing how FCM's physical design may similarly foster active learning and engagement [7].

3.4 Comparative Analyses and Identified Gaps

A comparative analysis of traditional and modern Quran memorization methods reveals clear research gaps including limited integrated studies on effectiveness, spiritual depth, cognitive outcomes and learner preferences, with prior research often focusing on isolated aspects like speed or motivation [14, 15]. The rapid evolution of tahfiz institutions, coupled with weaknesses in repetition systems, motivation, learning strategies and overreliance on traditional teaching aids, necessitates diversified and refined instructional methods to support comprehensive memorization processes [7]. Despite the proliferation of digital tools and gamified applications which show promise in engagement but face limitations in long term effectiveness, holistic measurement and integration with traditional practices, there is limited emphasis on structured instructional materials that combine pedagogical memorization techniques with organized Quranic content segmentation based on maqra' [7, 13, 15]. This gap justifies the introduction of FCM as a unique instructional innovation that integrates content structure and memorization strategies into a practical classroom resource.

3.5 Summary and Rationale for FCM

In summary, while traditional memorization methods provide a strong pedagogical foundation [1, 10], recent technological and instructional innovations such as gamification based teaching materials and modular al-Quran memorization applications offer enhanced usability, engagement, motivation and repetition systems [7]. However, gaps remain in instructional materials and teaching aids that systematically incorporate maqra' based content segmentation aligned with memorization techniques, particularly hybrid physical tools that strengthen traditional methods with contemporary strategies

to address weaknesses in retention, discipline and diversified approaches [7, 15]. The FCM fills this gap by delivering a structured, tangible, user-friendly instructional tool that facilitates Quran memorization via clearly defined maqra' units and pedagogical principles drawn from established techniques alongside modern usability and gamification insights [8, 13]. This positions FCM as a novel contribution to tahfiz education, directly addressing the three research objectives through its introduction, usability evaluation and exploration of instructional impact [15].

4 Methodology

4.1 Research Design

This study adopts a Research and Development (R&D) approach aimed at developing and evaluating an innovative instructional material for Quran memorization learning. The R&D approach is appropriate for studies that focus on the design, development and evaluation of educational products intended to improve teaching and learning practices. In this study, the development of the FCM follows four main phases: needs analysis, instructional design, product development and product evaluation. These phases were implemented to ensure that the instructional material produced is relevant to the needs of tahfiz learning and suitable for practical classroom use.

4.2 Development Process of FCM

The development of FCM was carried out through a systematic process involving four phases.

Phase 1: Needs Analysis. A needs analysis was undertaken to ascertain the challenges encountered by tahfiz students in the memorization and revision processes. Observations from teaching and learning sessions revealed that students relied exclusively on the *mushaf* for memorization and revision activities. Although this approach remains foundational, the lack of structured supplementary learning materials potentially constrains the implementation of more systematic memorization strategies. Accordingly, the requirement for a portable, organized learning tool to facilitate memorization and revision was established.

Phase 2: Instructional Design. Informed by the needs analysis outcomes, the FCM design adopts a maqra' based segmentation strategy, dividing Quranic verses into smaller units to support progressive memorization. Each juzuk of the Quran is subdivided into eight maqra', thereby enabling learners to pursue memorization in a systematic and incremental fashion. Moreover, the design emphasizes *mutasyabihat lafdzi* verses those with similar phrasing that commonly engender confusion during memorization.

Phase 3: Product Development. The FCM configured as a table flip card was designed for portability, practicality and visual organization. As illustrated in Figure 1, multiple prototypes were developed and refined prior to finalizing the FCM version. Usability informed enhancements encompassing layout optimization, card segmentation and visual design refinements were incorporated throughout the process.

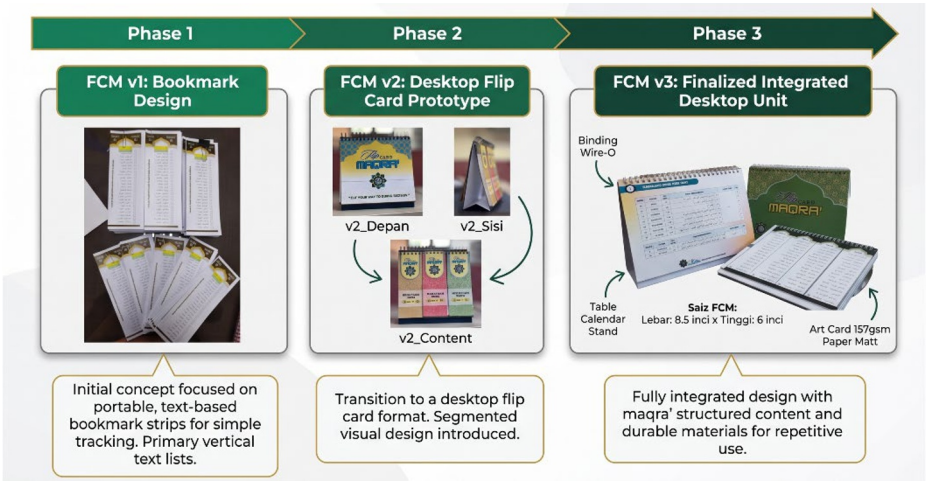


Fig. 1. Several versions of FCM were developed.

The finalized product integrates maqra' structured content, distinctly segmented visuals and durable materials to support repeated use in memorization and revision sessions, as shown in Figure 2.



Fig. 2. Final version of FCM

4.3 Participants

The participants of this study consisted of 48 tahfiz students from three tahfiz institutions in Malaysia: Darul Quran JAKIM, IQDAR and UNITEN. These institutions were selected due to their established tahfiz education program and their emphasis on systematic Quran memorization practices.

The samples were selected using purposive sampling. The selection criteria required participants to be active tahfiz students who were at the early stage of Quran memorization and possessed a moderate level of memorization ability. This criterion ensured that respondents were appropriate users for evaluating the usability of FCM as a supplementary instructional tool. The participants were identified and recommended by instructors from their respective institutions based on their learning profile and memorization level.

Given that this study represents an initial phase within a R&D framework, the use of descriptive analysis is considered appropriate to evaluate the usability and acceptance of the instructional product. The primary aim at this stage is not to establish causal relationships, but to determine whether the product is practical, understandable and acceptable for users in real learning contexts. Therefore, future research is recommended to employ quasi-experimental design, incorporating control and treatment groups as well as pre and post test measures, in order to evaluate the effectiveness of FCM on actual memorization performance.

4.4 Research Instrument

Data for the evaluation phase was collected using a structured questionnaire consisting of 20 items. The questionnaire was designed to assess users' perceptions of the usability of the FCM as instructional material. A total of 48 respondents provided complete responses to the questionnaire for the evaluation of the physical FCM. The instrument employed a five-point Likert scale to measure respondents' level of agreement, as follows: 1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree and 5 = Strongly Agree.

The instrument comprised three constructs, namely Clarity, Suitability and Usability. To ensure the internal consistency of the instrument, reliability analysis was conducted using Cronbach's Alpha. The results indicated that the Clarity construct achieved a good level of reliability ($\alpha = 0.824$), while the Usability construct demonstrated excellent reliability ($\alpha = 0.915$). However, the Suitability construct recorded a low reliability value ($\alpha = 0.347$), indicating weak internal consistency. This suggests that several items within this construct may require further refinement in future studies.

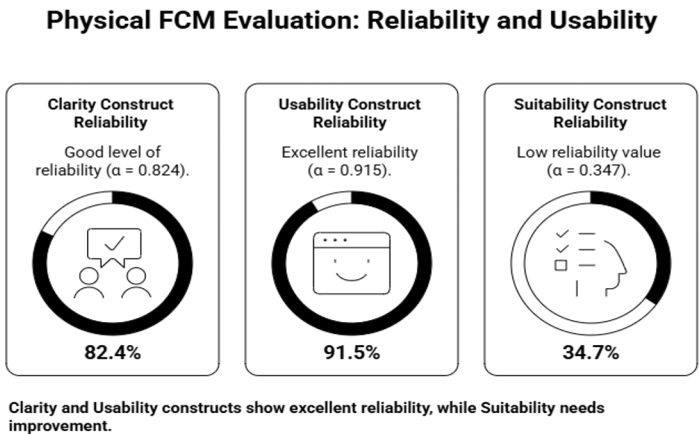
In addition, the instrument underwent content validation through expert review in the field of tahfiz education. The items were developed based on relevant literature and aligned with the research objectives to ensure the appropriateness and validity of the constructs measured.

4.5 Data Analysis

In the usability evaluation of FCM, a total of 48 respondents with moderate levels of Quran memorization ability participated in providing feedback through a structured questionnaire. The respondents answered 20 questionnaire items, which were organized according to three research objectives:

- i. Seven items related to the first objective examined the usability of FCM, focusing on aspects of product clarity and user understanding. These aspects included paper quality, font readability, colour selection, clarity of usage guidelines, practical design, product size and content organization.
- ii. Four items related to the second objective examined respondents' perceptions regarding the suitability of the product as an instructional material for Quran memorization. These items evaluated aspects such as suitability for different age groups, practicality for daily learning use and its appropriateness as a memorization support tool.
- iii. Nine items related to the third objective evaluated the usability of the product during learning sessions. These items assessed whether the FCM supports memorization activities, facilitates revision (*murajaah*), complements the use of the *mushaf*, helps save memorization time and enhances students' focus and motivation during memorization sessions.

The questionnaire responses were analyzed using percentage based descriptive analysis to determine the level of user agreement regarding the usability of the FCM as shown in figure 3.



Made with Napkin

Fig. 3. Presents the findings of the questionnaire conducted to evaluate the usability of FCM.

Scoring Interpretation. This study was conducted from January 2024 to Disember 2025, following a systematic R&D approach across four phases. Data from the 20 item usability questionnaire were analyzed using descriptive statistics, where the percentage of agreement was computed for each item and objective using Microsoft Excel, categorizing responses into low (0–33%), moderate (34–67%) and high (68–100%) levels as shown in Table 1.

Table 1. Interpretation Guide for Questionnaire Responses

Percentage of Agreement	Interpretation
0% – 33%	Low
34% – 67%	Moderate
68% – 100%	High

The results indicate that 86% of respondents agreed with the aspects of product clarity and their understanding of how the FCM should be used. Respondents reported that the guidance provided for using the product was clear and the design was practical for daily memorization activities. In terms of product suitability, 75% of respondents agreed that the FCM is suitable for use across different age groups and is relevant for regular memorization practice. Furthermore, 89% of respondents agreed that the FCM is suitable as a teaching and learning aid in tahfiz education, as it supports memorization and revision processes while also helping to increase students’ focus and motivation during memorization sessions. No respondents indicated a low level of agreement, suggesting that the FCM was generally perceived as a useful instructional support tool.

Table 2. Summary of Usability Agreement Levels by Research Objective

Research Objective	No. of Items	% of Agreement	Interpretation
Product Clarity & Understanding	7	86%	High
Product Suitability	4	75%	High
Learning Session Usability	9	89%	High

Table 2 summarizes the agreement levels across the three research objectives, showing consistently high acceptance of FCM usability (overall 83% high agreement). No respondents indicated a low level of agreement (0–33%), indicating overall high perceived usability of FCM as an instructional tool in tahfiz education.

Suggested Improvements. Although the overall findings indicate positive user acceptance, respondents also proposed several areas for further improvement. These suggestions focused on four main aspects:

- i. Product ergonomics, including size, weight and overall physical usability.
- ii. Colour selection and visual design.
- iii. Maqra' content organization and verse completeness.
- iv. Potential integration with digital or technology based platforms.

These suggestions provide useful insights for future refinement and development of the FCM as an instructional innovation in tahfiz education.

5 Discussion

5.1 Discussion on Findings

The findings of this study indicate that the FCM demonstrates a high level of usability and positive user acceptance as an instructional support tool in tahfiz education. Majority of respondents expressed agreement with the clarity, practicality and suitability of the FCM in facilitating Quran memorization and revision activities [16]. However, it is important to emphasize that these findings reflect users' perceptions of usability and support rather than direct evidence of improvement in memorization performance.

The high level of agreement (86%–89%) across the evaluated items suggests that the structured maqra' based segmentation plays a significant role in helping learners organize memorization tasks more systematically. This finding can be interpreted through the lens of Cognitive Load Theory, which posits that well-structured instructional materials reduce extraneous cognitive load and facilitate schema construction [17]. In the context of FCM, the division of Quranic content into smaller maqra' units enable learners to process information in manageable segments, thereby supporting more efficient encoding and retention processes.

Furthermore, the visual clarity and organization of the FCM appear to enhance learners' focus and engagement during memorization sessions. Respondents reported that the design elements, including clear typography and structured layout, contributed to ease of use and understanding. This aligns with previous studies on instructional design which emphasize that effective visual presentation can significantly improve learning outcomes by directing attention to relevant information and minimizing cognitive distraction [18].

In addition, the findings suggest that FCM may contribute to increased motivation and discipline in *muraja'ah* practices. The flip card format encourages active recall, as learners are required to retrieve memorized verses based on limited cues such as the beginning or end of *ayat*. This mechanism aligns with retrieval practice theory, which emphasizes that active recall strengthens long term memory consolidation [19]. Similar observations were reported in studies employing flashcard based or interactive memorization media to reinforce Quranic recall and motivation [20].

From a theoretical perspective this study shows how Cognitive Load Theory can be applied in tahfiz education. The FCM uses maqra' based segmentation to help organize memorization in a structured way. It reduces unnecessary mental effort through clear visual design and helps students focus on important parts such as *mutasyabihat lafdzi* verses. In this way, FCM links traditional Quran memorization methods with modern learning theories.

However, this study has several limitations. It is based on descriptive data from a small group of respondents, so the results cannot be widely generalized. It also does not use experimental or long term data, so the actual effect of FCM on memorization performance cannot be confirmed. Therefore, the findings should be seen as early evidence of usability and perceived usefulness only.

In conclusion, FCM shows potential as a structured and easy to use learning tool that supports both traditional tahfiz practice and modern educational approaches. Further studies are needed to test its real impact on memorization using stronger research designs.

5.2 Pedagogical Implications

The findings of this study suggest several important pedagogical implications for tahfiz education. The use of Flip Card Maqra' (FCM) provides tahfiz teachers with a more systematic approach to organizing and managing students' Quran memorization activities. By structuring memorization tasks according to maqra' based segments, teachers can guide students through the memorization process in a clearer and more manageable manner.

In addition, the visual and structured format of FCM supports teaching practices during *tasmi'* sessions by allowing teachers to monitor students' memorization progress more efficiently. The inclusion of key verses and *mutasyabihat lafdzi* elements also helps teachers emphasize critical areas that often pose memorization challenges for students. Consequently, FCM functions not only as a learning aid for students but also as a pedagogical tool that enhances instructional organization and effectiveness in tahfiz classrooms.

5.3 Practical Implications

From a practical perspective, FCM demonstrates flexibility in its application across different learning environments. The material can be used during formal classroom instruction, in dormitory settings where students conduct group memorization or revision sessions, and for independent *muraja'ah* activities.

This flexibility enables continuous learning beyond the classroom and supports students in maintaining consistent memorization practices throughout the day. As a portable and user friendly instructional material, FCM allows students to engage with Quran memorization tasks more actively and autonomously, thereby reinforcing the learning process in both structured and informal learning contexts.

Beyond the main findings, this research also generated several additional outcomes related to intellectual property, publication and potential commercialization. These

achievements demonstrate that the study contributes not only to academic knowledge but also to innovation development, knowledge dissemination and the advancement of instructional materials for tahfiz education.

In terms of intellectual property, the Flip Card Maqra' (FCM) has been formally registered within the Intellectual Property System under Copyright Notification Certificate Number CRLY2024W08819. This registration provides legal protection for innovation while recognizing its originality as an instructional product developed to support Quran memorization.

Regarding knowledge dissemination, the research findings have been documented and shared through the publication of an executive summary report. This initiative enables the transfer of knowledge to the academic community within PolyCC, tahfiz education practitioners and other relevant stakeholders who may benefit from the innovation.

From a commercialization perspective, innovation has also received recognition through participation and achievements in various innovation and commercialization competitions and programs. These recognitions indicate the potential for FCM to be further developed as a practical educational product with broader applications in tahfiz institutions and the wider education community as illustrated in Figure 4.

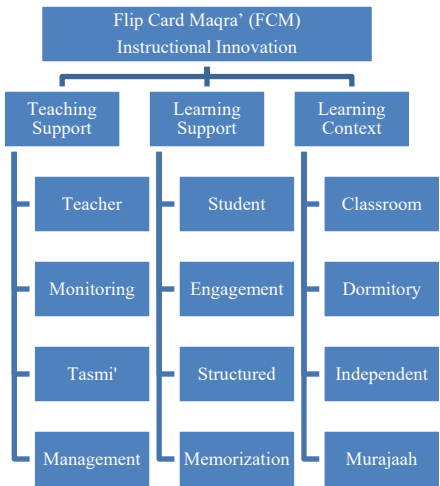


Fig. 4. FCM Instructional Framework for Quran Memorization

Sample Limitations and Future Research. This study focuses solely on usability evaluation without measuring long term memorization outcomes. Future research should utilize quasi-experimental designs comparing FCM with traditional methods to assess actual improvements in memorization accuracy and retention over several weeks.

6 Conclusion

This study explored the development and usability of the FCM as an innovative instructional material to support Quran memorization among tahfiz students. The findings indicate that FCM offers a structured and user friendly approach to memorization through the organization of Quranic content based on maqra'. Users responded positively to its design, clarity and practical relevance in supporting memorization and revision activities. The use of FCM also assists teachers in organizing memorization tasks and monitoring students' progress more systematically.

This study contributes to tahfiz education by introducing a structured instructional innovation that complements traditional memorization practices while enhancing learner engagement. Despite these contributions, the study focuses primarily on usability aspects. Future research may therefore investigate the effectiveness of FCM in improving memorization performance through experimental studies and explore the integration of digital or technology-enhanced versions to broaden its application in diverse tahfiz learning environments.

Acknowledgments. This study was funded by the Policy and Research Division, Ministry of Higher Education, Malaysia under Grant No. KS/JPPKK/05, which supported the development and evaluation of the Flip Card Maqra' (FCM) project.

References

1. Y. Rijan, S. Hassan, and M. Mohammad, Preliminary Study of Hafazan Methods for Diploma Level Students at Tahfiz Study Institutions, 850-857 (2025).
2. R. H. Kay, "Developing a framework for creating effective instructional video podcasts," *International Journal of Emerging Technologies in Learning (iJET)*, vol. 9, no. 1, 22-30, (2014).
3. K. G. Spiel, *Designing an instructional publication on the Geology of Capitol Reef National Park*, M.S. thesis, Brigham Young University, 2016. [Online]. Available: <https://scholarsarchive.byu.edu/etd/6063>
4. S. Pissierssens, J. Claes, and G. Poels, The "Physics of Diagrams": Revealing the scientific basis of graphical representation design, 2019.
5. A. Ghai and U. Tandon, "Analyzing the impact of aesthetic visual design on usability of e-learning: An emerging economy perspective," *Higher Learning Research Communications*, vol. 12, no. 2, pp. 1-22, 2022.
6. R. Hidayat and Y. Fauziyah, "The urgency of understanding the verses of *Mutasyabihat Lafdziyyah* for learning Tahfidz Al-Quran," *KnE Social Sciences*, pp. 578-585, 2022.
7. A. M. Ahmad, A. A. Rahman, M. H. Saleh, and Z. Daud, "Diversifying Quranic revision methods using gamification-based teaching material for tahfiz education," *International Journal of Evaluation and Research in Education (IJERE)*, vol. 13, no. 2, pp. 987-996, Apr. 2024, doi: 10.11591/ijere.v13i2.26218.

8. K. Haryono, R. A. Rajagede, and M. U. A. S. Negara, "Quran memorization technologies and methods: Literature review," *International Journal on Informatics for Development (IJID)*, vol. 11, no. 1, 192-201 (2022)
9. P. M. N. Norsalim, M. N. A. Akbarruddin, N. S. A. Basir, W. H. N. W. Muda, and M. H. Jeinie, "Challenges in establishing vocational skills in Tahfiz curriculum at Malaysian Tahfiz Centre," *International Journal of Academic Research in Business and Social Sciences (IJARBSS)*, vol. 11, no. 16, 53-62 (2021)
10. N. S. Hassan, N. H. M. Asa, and N. I. H. M. Zainuzi, "Teknologi maklumat dan inovasi dalam pembelajaran tahfiz Quran," *Journal of Islamic, Social, Economics and Development*, vol. 7, no. 50, 122-132 (2022)
11. M. M. A. Rahim, W. M. H. W. A. Halim, A. H. Borham, A. Ismail, and T. N. T. Riduan, "Perancangan pengajaran dan pembelajaran dan penguasaan hafazan al-Quran pelajar sekolah menengah tahfiz," *Jurnal Qiraat*, vol. 4, no. 1, 1-13 (2021)
12. S. S. M. Shokri, S. Salihan, and M. H. A. Hamid, "Inovasi digital dalam pengajaran dan pembelajaran program Tahfiz di Universiti Tenaga Nasional (UNITEN) [Digital innovation in teaching and learning Tahfiz programme at Universiti Tenaga Nasional (UNITEN)]," *Journal al-Irsyad*, vol. 6, no. 1, 495-507 (2021)
13. M. Y. A. Akbari, Kusaeri, Y. A. Bakar, and E. F. Rusydiyah, "Typology and effectiveness of Al-Quran memorization applications," *Tafkir: Interdisciplinary Journal of Islamic Education*, vol. 5, no. 4, 584-597 (2024)
14. S. N. Aini, "A comparison of traditional and modern Qur'anic teaching methods in Islamic education," *Journal of Noesantara Islamic Studies*, vol. 2, no. 1, 23-32 (2025)
15. N. Neliwati, R. Batubara, M. Darwis, and D. Desriadi, "Modernisation of memorising the Qur'an: A comparison of traditional and modern methods," *Scaffolding: Jurnal Pendidikan Islam dan Multikulturalisme*, vol. 7, no. 1, 424-437 (2025)
16. Fauziyyah, L. N. F., Agustina, S. R. E., Syarofani, M., Novita, A., & Fadzil, H. B. M. Development of Flashcard Learning Media to Increase Learning Motivation to Memorize Juz 29 in the Al-Qur'an Educational Institute. *Tadris: Jurnal Pendidikan Islam*, 19(1), 26-43 (2024)
17. Fred Paas, Alexander Renkl & John Sweller. Cognitive Load Theory and Instructional Design: Recent Developments, *Educational Psychologist*, 38:1, 1-4 (2003)
18. Liana, W., Bahari, Y., Sumiati, T., & Warneri. The Influence of Interactive Media Flashcards on the Process of Memorizing the Qur'an in Early Childhood. *Attractive: Innovative Education Journal*, 6(3), 281-288 (2024)
19. Karpicke, J. D., & Roediger, H. L. The Critical Importance of Retrieval for Learning. *Science*, 319(5865), 966-968 (2008)
20. Wulandari, D., Khosiah, N., & Sholeha, I. A. Internalisasi Kemampuan Menghafal Siswa Menggunakan Media Flashcard Melalui Ekstrakurikuler Tahfiz di Madrasah Ibtidaiyah Nurul Islam Mayangan. *Jurnal Ilmiah Pendidikan Dasar (JIPDAS)*, 5(1), 378-387 (2025)

Open Access This chapter is licensed under the terms of the Creative Commons Attribution-NonCommercial-NoDerivatives 4.0 International License (<http://creativecommons.org/licenses/by-nc-nd/4.0/>), which permits any noncommercial use, sharing, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons license and indicate if you modified the licensed material. You do not have permission under this license to share adapted material derived from this chapter or parts of it.

The images or other third party material in this chapter are included in the chapter's Creative Commons license, unless indicated otherwise in a credit line to the material. If material is not included in the chapter's Creative Commons license and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder.

