

Multisensory Approach in Memorizing the Al-Quran for Early Childhood: Integration of the Tradition of Memorizing the Al-Quran with Digital Technology

Achmad Faqihuddin¹, Mokh Iman Firmansyah², Abdillah Muflih³

¹ Universitas Pendidikan Indonesia, Bandung, Indonesia; faqih@upi.edu

² Universitas Pendidikan Indonesia, Bandung, Indonesia; mokhiman.712@upi.edu

³ Islamic University of Medina, Kingdom of Saudi Arabia; 422040053@stu.iu.edu.sa

ARTICLE INFO

Keywords:

Multisensory Approach;
Memorizing the Quran;
Early Childhood;
Talaqqi;
Digital Technology

Article history:

Received 2024-04-10

Revised 2024-06-05

Accepted 2024-06-15

ABSTRACT

Introducing the Quran to early childhood is a crucial foundation for developing their character and spirituality. In the modern technological era, adopting an effective learning approach is essential. This article reviews the significance of a multisensory approach in Quran memorization for early childhood. This study employed a mixed-methods approach, involving a survey of 50 parents selected through convenience sampling who participated in the *tahfidz* program. In addition, in-depth interviews were conducted with seven parents and three early childhood *tahfidz* teachers, complemented by direct observation of interactions in the memorization process. Data analysis was performed descriptively using MS Excel 2013 for quantitative data and NVivo 12 for qualitative data, based on the Miles and Huberman approach. The results indicate that the tradition of Quran memorization remains strong in Muslim families and is increasingly applied to early childhood. Methods involving multiple senses—such as hearing, sight, and touch—are preferred to enhance memorization. The integration of technology, combining audio, visual, and kinesthetic elements, creates an engaging memorization experience. This study confirms that a multisensory approach, along with technology integration and the active involvement of parents and teachers, enhances children's engagement and memory retention. It also provides a robust foundation for developing an effective religious education curriculum.

This is an open access article under the CC BY-NC-SA license.



Corresponding Author:

Achmad Faqihuddin

Universitas Pendidikan Indonesia, Bandung, Indonesia; faqih@upi.edu

1. INTRODUCTION

The tradition of memorizing the Quran in Muslim families is deeply rooted in Islamic teachings and culture. Memorizing the Quran is considered an important practice, emphasizing spiritual benefits and is

regarded as a communal obligation (*fardhu kifayah*) in Islamic teachings (Berglund & Gent, 2018; Hermawan et al., 2024; Mutathahirin et al., 2022; M. A. Rahman et al., 2020). This tradition has persisted since the time of the Prophet Muhammad SAW, when Arab society relied on oral traditions (Iman, 2020). Over the centuries, various methods have been developed to facilitate memorization, such as the ODOA (One Day One Ayat) movement. The process of memorizing the Quran is not only seen as a religious obligation but also as a way to maintain its sanctity (Anwar & Hafiyana, 2018). The achievement of completing the memorization of the 30 Juz of the Quran is often celebrated with a celebratory event, highlighting its importance in Muslim society (A. Rahman et al., 2022). The Quran holds a central place in Muslim households, where verses are recited for protection, safety, and strength (Setiadi, 2023).

Memorizing the Quran in early childhood has been associated with various developmental benefits. Studies have shown that memorizing the Quran positively impacts religious and moral values, physical-motor skills, social-emotional development, cognitive abilities, linguistic skills, and artistic expression in early childhood (Hanafi et al., 2021; Syaifulloh et al., 2023). Additionally, memorizing the Quran has been shown to improve brain functions related to processing, storing information, and forming memories (Ibrahim et al., 2018). This activity also plays a role in the emotional well-being of children who have memorized most of the Quran (Saquib et al., 2017). Various factors influence the success of memorizing the Quran, including effective memorization methods and an engaging learning environment (Mu'min & Tabroni, 2023; Sabrina et al., 2022). The impact of memorizing the Quran also extends to cognitive function, with studies showing an increase in logical-mathematical intelligence among students who engage in memorization activities (Asliyah & Ananda, 2022).

Research on brain development indicates that early childhood is a period of rapid development, especially in the hippocampus, which plays a critical role in memory and learning (Gilchrist et al., 2018; Pretorius et al., 2005; Warren et al., 2021). The television program "Hafiz Indonesia" features young children who have the ability to memorize the Quran, inspiring many parents to encourage their children to do the same (Apriliana & Nurrahmawati, 2019; Kutanto, 2017). This program highlights children's achievements in memorizing the Quran, changing societal views on children's ability to memorize sacred texts, and encouraging parental participation in their children's religious education (Sholihah, 2021; Supriadi et al., 2023; Ulummudin, 2020).

This study aims to develop an innovative Quran memorization method for early childhood by integrating technology and a multisensory approach. While many previous studies have focused on the application of technology in education with visual, auditory, and memory approaches (Syaifulloh et al., 2023), a multisensory approach involving kinesthetic aspects has not been widely explored. A multisensory approach that combines visual, auditory, and kinesthetic elements is expected to strengthen the connection between sensory and memory, as well as stimulate children's gross motor development (Broadbent et al., 2018, 2019; Demina et al., 2022; Murray et al., 2016). By actively involving the body in learning, this approach can maximize the learning experience of young children and increase information retention (Barutchu et al., 2009, 2010). Thus, this study not only fills the existing gap but also offers new practices that can be adopted in *tahfiz* centers or at home, making the process of memorizing the Quran more dynamic and engaging for the younger generation.

2. METHODS

This research uses a *Mixed Method* to gain a comprehensive understanding of the process of instilling early childhood in memorizing the Al-Quran (Ruth et al., 2023). A survey of 50 parents (NVivo Code: S-n) was conducted using the convenience sampling approach, targeting those involved in *tahfidz* programs for early childhood or those who send their children to special PAUD for Tahfidz (Emerson, 2021). Convenience sampling was selected due to the specificity of the target population, ensuring that data is collected from the most relevant sources directly related to the research objective: the implementation of *tahfidz* programs for early childhood. This method allows for the efficient gathering of information from individuals who are directly engaged with the subject matter. The survey was administered via Google Forms (Yamanaka & Shoji, 2019), incorporating both open and closed questions. These questions aimed

to capture a comprehensive understanding of parents' perceptions, experiences, motivations, challenges, and the media they use to support their children's Quran memorization efforts. Next, in-depth interviews were conducted with 7 parents (Code on NVivo: IP-n) and 3 early childhood tafhidz teachers (Code on NVivo: IT-n) (Thoft & Ward, 2022). This interview focused on personal experiences, strategies used, and their hopes for the results of children's *tafhidz*. Apart from that, direct observations were carried out on the process of memorizing the Al-Quran for young children with parents and teachers in learning places (Booren et al., 2012). Observations were carried out to see directly the interaction between parents and children and the interaction between teachers and students in the process of memorizing the Al-Quran, the teaching methods used, and the involvement of children in the learning process. Finally, a document study was carried out by analyzing the teaching curriculum, student progress records, and relevant learning materials (Mehta et al., 2022). The collected data is then analyzed. Quantitative data analysis through descriptive quantitative data analysis methods with the help of Ms. Excel 2013 (Rubin & Abrams, 2015), while qualitative data analysis was carried out using the Miles and Huberman approach with the help of NVivo 12 software (Miles & Huberman, 1994; Peng & Chen, 2023). By using this method, it is hoped that this research can provide an in-depth understanding of the process of instilling young children in memorizing the Al-Quran as well as the factors that influence their *tafhidz* experience and results.

3. FINDINGS AND DISCUSSION

The survey results show that parents have a high awareness of the importance of memorizing the Al-Quran at an early age . Parents have various motivations that encourage them to instill memorization of the Al-Quran from an early age in their children. The main motivation is the desire to provide strong religious education from an early age, because they believe that a solid understanding of religion is an important foundation in forming their children's character and morals. Apart from that, they hope that their children will become a generation of Qur'ani who have a strong closeness to the Al-Quran, seeing tafhidz as a way to introduce and memorize the Al-Quran from an early age. A comprehensive introduction to Islamic values is also an important factor, because parents want their children to be able to apply these values in their daily lives. Some parents also dream of their children becoming Hafidz-Hafidzah, someone who memorizes the Al-Quran, with tafhidz seen as the initial stage on this journey. The ease of studying the Al-Quran at an early age is understood as an opportunity to take advantage of children's ability to remember what they hear, do and teach. The research results indicate that audio stimuli are universally used in instilling memorization in early childhood, with 100% of respondents routinely employing them, highlighting their widespread popularity and effectiveness. In contrast, visual stimuli are routinely used by 65% of respondents, while 30% rarely use them, and 5% never use them. This demonstrates that although visual stimuli are relatively popular, they are not as universally adopted as audio stimuli. The combination of audio and visual stimuli is routinely used by 55% of respondents, but 7% have never used this approach, suggesting that while a more holistic approach is preferred by many, it has not yet been fully accepted. Meanwhile, the use of kinesthetic stimuli is notably low, with only 15% of respondents routinely using them and 55% never using them. In addition, parents see investment in their children's religious education as savings for the afterlife, hoping that they can achieve the crown of glory and become carriers to heaven through understanding and practicing the Al-Quran. The challenges that often arise in supporting children in the early childhood *tafhidz* program are the child's fluctuating mood, difficulty finding enough time, daily busyness, lack of knowledge about effective methods and lack of support from the surrounding environment.

Table 1. Word Frequency Query NVIVO 12 lists 10 frequently recurring words in interview transcript data and survey results

No	Word	Translation	Length	Count	Weighted Percentage (%)
1	Anak	Child	4	144	4.48
2	Quran	Al-Quran	5	43	1.34
3	Sekolah	School	7	29	0.90
4	Rumah	House	5	26	0.81
5	Qur'an	Al-Quran	6	23	0.72
6	Talaqqi	Talaqqi	7	23	0.72
7	Menghafal	Memorize	9	19	0.59
8	Tahfidz	Tahfidz	7	19	0.59
9	Guru	Teacher	4	18	0.56
10	Murotal	Murotal	7	16	0.50

The NVIVO 12 Word Frequency Query data or words that are frequently repeated in the interview transcript data and survey results , it is then displayed via the NVivo 12 Word Cloud feature. As seen in Figure 1:



Figure 1. NVivo 12 Word Cloud display of Word Frequency Query results, interview transcript data and survey results.

Analysis of the Word Frequency Query Results feature in NVIVO 12 related to the Multisensory Approach in Memorizing the Al-Quran for Early Childhood : Integration of the Tradition of Memorizing the Al-Quran with Digital Technology highlights important aspects in this context. Of the

10 most frequently occurring words, "children" was the main focus with the highest frequency, indicating that this approach is focused on learning tailored to children. Then, the word "Quran" or "Qur'an" appears quite frequently, reflecting the essence of this program which is centered on teaching and memorizing the Al-Quran. Additionally, the words "school" and "home" highlight the importance of formal and informal environments in religious learning, while "talaqqi" emphasizes the method of reading and repeating the Al-Quran. "Memorization" and "tahfidz" emphasize the main focus on memorizing the Al-Quran as the main goal. The role of the "teacher" is also considered in the implementation of this approach. Although with lower frequency, The word "murotal" or reading the Quran slowly, clearly, and beautifully, while adhering to the rules of tajwid, reflects the use of Quran audio materials as learning support. This analysis shows that the multisensory approach not only pays attention to academic aspects, but also involves the environment, digital technology, and the role of parents in early childhood learning (Faqihuddin, 2024b).

3.1 The Tradition of Memorizing the Al-Quran for Early Childhood

The tradition of memorizing the Al-Quran in early childhood has become an integral part of the culture and religious practices of many Muslim families. Hafiz Indonesia has made a significant contribution in changing the stereotypical view of the ability of young children and children with disabilities to memorize the Al-Quran. Previously, children in this age group were often thought to only be able to learn simple things, but this show proves otherwise. The presence of children who are able to memorize the Al-Quran well shows that they have extraordinary intellectual capacity. The positive impact of this broadcast was felt not only among parents but also by many people who encouraged their children, especially young children , to learn to memorize the Al-Quran. This shows that religious education, especially in terms of memorizing the Al-Quran, can be started early and accessed by all groups, regardless of age or physical condition (Hanafi et al., 2021; Subakti & Faqihuddin, 2022).

Parents can use various methods to increase the memorization of the Al-Quran in young children. One of the main approaches is to repeat the reading of the Al-Quran and consistently use media such as murottal and talaqqi. Many Muslim families Starting from when the child is still in the womb or still a baby, he will be introduced to the verses of the Al-Quran slowly. Muslim parents are active in listening to the Al-Quran either through direct reading or by playing audio of the Al-Quran. This approach not only focuses on memorizing, but also on learning to read the Al-Quran with understanding. Some parents also choose to involve their children in daily activities while listening to the Al-Quran, such as when playing or coloring. Apart from that, there are also those who take the opportunity in the car or before going to bed to tune in to murottal Al-Quran. Thus, parents' awareness and consistency in guiding children in memorizing the Al-Quran from an early age is the key to the memorization process (Anoum et al., 2022).

Apart from being supported by the family, the tradition of memorizing the Al-Quran in early childhood is also often supported by early childhood education institutions related to *tahfidz* Al-Quran. Early childhood Tahfidz schools are an attractive choice for parents, such as Tahfidz PAUD, Al-Quran Kindergarten, and Islamic Kindergarten. Apart from that, there are also those who choose to enroll their children in play groups or playgrounds that focus on recitation of the Al-Quran. Apart from formal educational institutions, there are also those who choose the option of home tahfidz for toddlers or use the services of growth and development therapists to support early childhood tahfidz Al-Quran learning . Thus, there are a variety of options available for parents who want to educate their children in memorizing the Al-Quran from an early age , according to the preferences and needs of each family. PAUD Tahfidz offers a more comprehensive approach to memorizing the Al-Quran for young children . In contrast to TK or TPQ in general which focus on memorizing short letters, PAUD Tahfidz gives children the opportunity to memorize juz 30 of the Al-Quran after they graduate from PAUD. This approach shows a greater commitment to guiding children in memorizing the Al-Quran from an early

age, as well as providing a stronger foundation for the development of their tahfidz abilities in the future (Faqihuddin & Romadhon, 2023; Tarmilia et al., 2022).

3.2 Strategies for Instilling Memorization in Early Childhood

Early childhood children do not yet have the skills to read the Al-Quran, the process of memorizing the Al-Quran in early childhood requires appropriate strategies and methods (Anoum et al., 2022; Faqihuddin & Subakti, 2022). Research results show that instilling Al-Quran memorization in early childhood requires a careful approach and effective strategies. First of all, a supportive environment at home is very important, where the Al-Quran is often listened to and recited with great tenderness. Consistent repetition is also key, as it helps strengthen children's memories and deepens their understanding of sacred texts. Game-based learning methods also help make the learning process more enjoyable, by using memorization games, coloring activities, or short stories related to verses from the Al-Quran. Technology can be a useful tool by utilizing child-friendly interactive learning applications or videos. The role of parents as good role models cannot be ignored, by providing positive support and encouragement to children at every step of their journey. Consistency, patience and sincere praise are also needed in this process, because memorizing the Al-Quran in early childhood is a journey that requires time and dedication. By implementing these strategies consistently and lovingly, parents and educators can help children gain a strong connection to the Al-Quran from an early age , providing a solid foundation for their future spiritual and academic development.

From the various answers given, there is no one method that is absolutely the most effective for adding memorization to early childhood . However, there are several approaches that are often mentioned by parents and educators, such as the talaqqi method (repeated reading with direct guidance), listening to Al-Quran murottals, the right brain or kinesthetic approach and the use of media or gadgets that support memorizing the Al-Quran. Factors such as children's characteristics, their learning styles , and the surrounding environment also play a role in determining the most effective method. In this case, patience, consistency and support from parents and educators are the main keys in guiding children in the process of memorizing the Al-Quran from an early age . The results of research through surveys found that there are four types of stimuli that can be used to help children memorize the Al-Quran from an early age :

Table 2. Percentage of use of stimulus types in instilling memorization in early childhood

No	Stimulus Type	Percentage (%)		
		Always	Seldom	Not Using Yet
1	Audio	100	0	0
2	Visual	65	30	5
3	Audio visual	55	32	7
4	Kinesthetic	15	20	55

The table above illustrates the use of various types of stimuli in Quran memorization by young children. Audio stimuli are universally used, with 100% of respondents routinely relying on them, indicating their widespread popularity and effectiveness. In contrast, visual stimuli are routinely used by 65% of respondents, while 30% use them rarely, and 5% have never used them. This indicates that while visual stimuli are quite popular, they are not as universally adopted as audio stimuli. A combination of audio and visual stimuli is routinely used by 55% of respondents, but 7% have never used this approach, suggesting that although a more holistic approach is favored by many, it is not yet fully accepted. Meanwhile, the use of kinesthetic stimuli is notably low, with only 15% of respondents routinely using them and 55% never using them. This reflects the relative lack of popularity or accessibility of kinesthetic methods compared to other techniques in the memorization process for young children (Faqihuddin, 2024a).

The distribution of four types of stimuli that can be used to help children memorize the Al-Quran from an early age, along with the media, gadgets, and sources used, can be seen in the following table:

Table 3. Types of stimuli used to help young children memorize the Al-Quran along with the media, gadgets and sources used

No	Stimulus	Description	Media/ Gadgets/ Sources	Code
1	Audio	Using audio reading of the Al-Quran or listening directly to parents' reading of the Al-Quran. Children can listen and imitate sounds to improve their memorization skills.	1. Murotal Smartphone Audio 2. Speaker /Murotal Box 3. Audio Hafidz Doll 4. Audio/talaqqi directly from parents 5. Audio/talaqqi directly from the teacher/cleric 6. Hamim Android Application 7. Murottal Spotify Android Application 8. Android application 'Juz Amma + Voice'	A1 A2 A3 A4 A5 A6 A7 A8
2	Visual	The use of images showing Al-Quran stories or certain verses, helps children visualize the content of the Al-Quran.	1. Tahfidz Card 2. Al-Quran verse visualization book 3. Visualization image of Al-Quran Verses	V1 V2 V3
3	Audio visual	An interactive computer application or program that combines sound, images and animation to teach the Al-Quran visually and auditorily.	1. YouTube murottal content 2. YouTube Kids murottal content 3. Smart Hafidz 4. Android Application 'Indonesian Children Memorize' 5. Smart TV that streams murottal content	AV1 AV2 AV3 AV4 AV5
4	Kinesthetic	The use of physical or hand movements when memorizing the Al-Quran or an approach that utilizes body movements (kinesthetic) to help children in the process of memorizing the Al-Quran.	1. Verse Puzzle 2. Game Connecting Al-Quran Verses 3. Hafiz Doll 4. Memorize the Al-Quran while following the Hand Movements of the Teacher/Ustadz 5. Memorize the Al-Quran while following your parents' hand movements 6. Video recording of parents' hand movements while reciting verses from the Al-Quran.	K1 K2 K3 K4 K5 K6

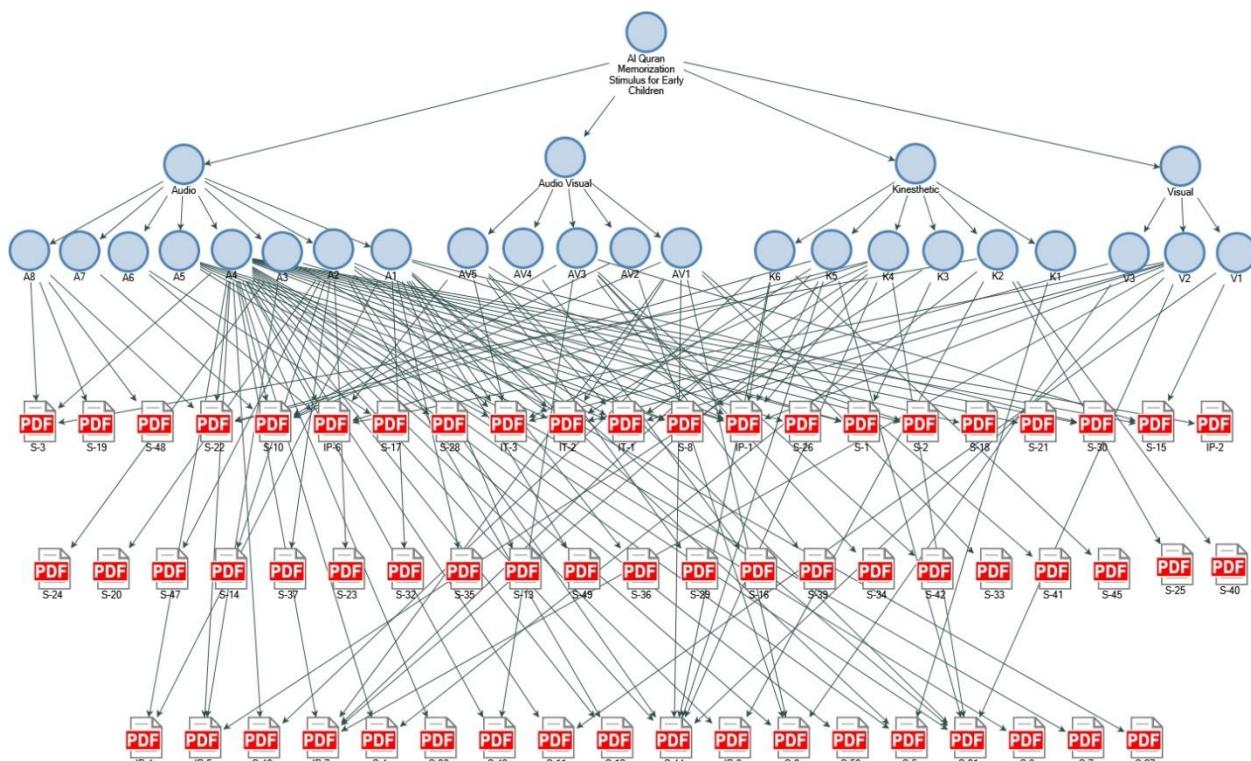


Figure 1. Project Map on NVIVO 12 which displays the mapping of research respondents and the various types of stimuli used .

The *talaqqi* method involves a teacher or parent reading verses of the Quran aloud while the student listens attentively and then repeats the verses. This method has proven effective in aiding the memorization process for early childhood. Through direct interaction with the teacher or parent, children can successfully memorize the Quran, even if they have not yet acquired the skills to read it independently (Haryani & Sholeh, 2019). Apart from that, there is the development of a new method which aims to help children read and memorize the Al-Quran by maximizing the right brain. The right brain is connected with kinesthetic and creative abilities, which can be key in children's learning (Demina et al., 2022; Muhammad Sufyan As-Tsauri, 2021). By integrating a kinesthetic approach in memorizing the Al-Quran, such as using body movements or using dynamic visual aids , we can optimally utilize the potential of the child's right brain. This provides variety in learning and can make the learning process more interesting and effective for children. The development of this method reflects an effort to expand the scope of Al-Quran learning approaches beyond traditional methods. By combining kinesthetic elements, we can optimize children's learning processes, allowing them to gain deeper understanding deeper and improve retention of Al-Quran memorization .



Figure 3. Video recording of the implementation of the multisensory approach in memorizing the Al-Quran by combining audio, visual and kinesthetic.

3.3 Motivation And Expectations Of Parents

Parents are primarily motivated by the desire to provide their children with a robust religious education from an early age, aiming to establish a solid foundation of character and morals (Faqihuddin & Nugraha, 2023). They aspire for their children to become a Qur'anic generation with a deep connection to the Qur'an, viewing the Early Childhood Tahfidz Program as a means to introduce their children to the Qur'an and facilitate its memorization from a young age. Additionally, parents seek an educational environment aligned with the educational and caregiving practices at home, believing it can reinforce the religious teachings implemented there. Some parents specifically express the desire for their children to become Hafidzah, individuals who memorize the Qur'an, considering the early childhood tahfidz program as the initial step in this journey. Given the remarkable memory capacity of young children, parents aim to ensure their children are accustomed to being close to the Qur'an from an early age.

The primary hope of parents is that their children will memorize the Qur'an and maintain istiqomah in practicing its teachings (Budiyanti et al., 2023). They aim to establish a strong religious foundation for their children early on, hoping that their children will develop a love for the Qur'an and become accustomed to interacting with it through reading, memorizing, and understanding its contents. Parents also expect an environment of Islamic friendships and parenting that supports their children's moral and spiritual growth. They hope their children will be familiar with Islamic values, possess an understanding of Islamic teachings, and be able to apply them in their daily lives. Parents wish for their children to have the motivation to perform good deeds and be kind to others, to recognize the verses of Juz 30 as a starting point for deeper Qur'anic learning, and to receive the guidance of the Qur'an to nurture their minds, hearts, and actions. Additionally, parents hope that their children will learn the Qur'an in an enjoyable manner and grow into individuals equipped to navigate the modern world with a strong foundation in religious understanding.

3.4 The Challenge of Inculcating Memorization in Early Childhood

In adding Al-Quran memorization to early childhood, various psychological aspects of children are the main consideration (Said, 2017). Children's changing moods, undeveloped seriousness, and unstable focus are challenges that are often faced (Graziano et al., 2007). Apart from that, children's limited abilities, such as limited pronunciation, not yet fluent pronunciation of the Hijaiyah letters, and limited speech, also become obstacles in the learning process. Parental involvement is also key in overcoming these obstacles. Consistency in increasing children's memorization, patience and consistency in guiding, as well as parents' difficulties in learning are important factors (Muthmainah & Usman, 2022). Environmental distractions, both from the surrounding environment including technology and environmental differences between school and home, also affect children's concentration. External factors, such as the additional costs of Tahfidz school and the demands of memorizing the Al-Quran which may be heavy, as well as dividing time between various activities, are additional obstacles that must be overcome. Apart from that, the relevance of parental habits to children's learning and the ability to balance tahsin and memorizing the Al-Quran are important factors in achieving learning success. By paying attention to all these aspects and taking appropriate steps, the process of learning to memorize the Al-Quran in early childhood can be more effective and sustainable.

3.5 Impact on Early Childhood

Al-Quran memorization education has a significant impact on early childhood development (Hanafi et al., 2021). The process of memorizing the Al-Quran involves active use of the brain in memory, concentration, and analytical thinking skills. It helps improve children's cognitive abilities, including short and long-term memory abilities, as well as focus and concentration abilities. Apart from that, learning the Al-Quran at an early age also strengthens moral and ethical values in children. When

children understand and internalize the values contained in the Al-Quran, such as honesty, kindness, and compassion, they tend to become better individuals in behavior and social interactions. Education to memorize the Al-Quran also helps shape children's personalities in a positive way. The learning process requires patience, perseverance, and discipline in memorizing the Al-Quran, which helps shape children's characters into stronger and more independent characters. They learn to overcome challenges, appreciate the learning process, and understand the importance of consistency and persistence in achieving goals. Apart from the psychological and moral impact, education in memorizing the Al-Quran also has a deep spiritual impact. Children learn to recognize and respect the teachings of their religion from an early age, which helps strengthen their faith and connection to God. It also helps them develop an attitude of humility, simplicity, and gratitude towards God's gifts. Education to memorize the Al-Quran has a very important impact on early childhood development, including cognitive, moral, character, and spiritual aspects. This helps shape children into individuals with integrity, responsibility, and commitment to good values in their lives.

4. CONCLUSION

This study confirms that the tradition of memorizing the Qur'an remains robust in Muslim families, particularly among young children. Multisensory methods involving hearing, sight, and kinesthetic activities are the preferred approaches to enhance memorization. The integration of technology with these multisensory methods creates an engaging and effective learning experience for early childhood. High parental awareness of the importance of early religious education and their motivation to cultivate a Qur'anic generation are key drivers in instilling Qur'an memorization in children. However, parents encounter challenges such as fluctuations in children's moods, daily activities, and a lack of understanding of effective methods. These findings have significant implications for both early childhood education theory and religious studies. Theoretically, this study strengthens the theory of multisensory education, demonstrating that integrating auditory, visual, and kinesthetic senses effectively improves Qur'an memorization. Additionally, it underscores the crucial role of parental involvement in children's religious education, supporting the theory that active parental participation is vital for successful learning outcomes. Practically, educators and parents can apply multisensory strategies, utilize digital technology, and create a supportive learning environment for memorizing the Qur'an. Interactive applications, learning videos, and educational games based on the Qur'an can make the learning process more engaging and effective. Moreover, parents should receive training on multisensory methods and how to integrate technology into religious learning. By implementing these findings, it is hoped that a generation closely connected to the Qur'an and with strong memorization skills from an early age can be fostered. Recommendations for further research include the development of more integrated and innovative methods and media for memorizing the Qur'an using a multisensory approach. Future studies should consider adapting these methods to various ages and abilities of children and utilizing the latest technology optimally.

Acknowledgments: We express our sincere gratitude to all the respondents who participated in this study and generously shared their insights and information. Their contribution has been invaluable to the research process. We also extend our heartfelt appreciation to the Research and Community Service Institute (LPPM) of the Universitas Pendidikan Indonesia (UPI) for providing the necessary funding support for this research project. Their assistance has enabled us to conduct this study and advance our understanding in this field..

Conflicts of Interest: The authors declare no conflict of interest

REFERENCES

- Anoum, P., Arifa, F., & May, C. (2022). Strategies to Increase the Motivation of Tahfidz Al-Quran. *Journal International Inspire Education Technology*, 1(2), 74–85. <https://doi.org/10.55849/jiiet.v1i2.88>
- Anwar, K., & Hafiyana, M. (2018). Implementasi Metode ODOA (One Day One Ayat) Dalam

- Meningkatkan Kemampuan Menghafal Al-Quran. *Jurnal Pendidikan Islam Indonesia*, 02.
- Apriliana, A., & Nurrahmawati, N. (2019). Brand image program Hafiz Indonesia 2019 sebagai program islami di bulan Ramadhan. *Prosiding Hubungan Masyarakat*, 5(2), 740–747. <https://karyailmiah.unisba.ac.id/index.php/humas/article/view/18681>
- Asliyah, N., & Ananda, R. (2022). The effect of memorizing the Quran on students' mathematical logical intelligence. *Desimal: Jurnal Matematika*, 5(1), 61–68. <https://doi.org/10.24042/djm.v5i1.11521>
- Barutchu, A., Crewther, D. P., & Crewther, S. G. (2009). The race that precedes coactivation: Development of multisensory facilitation in children. *Developmental Science*, 12(3), 464–473. <https://doi.org/10.1111/j.1467-7687.2008.00782.x>
- Barutchu, A., Danaher, J., Crewther, S. G., Innes-Brown, H., Shivdasani, M. N., & Paolini, A. G. (2010). Audiovisual integration in noise by children and adults. *Journal of Experimental Child Psychology*, 105(1–2), 38–50. <https://doi.org/10.1016/j.jecp.2009.08.005>
- Berglund, J., & Gent, B. (2018). Memorization and focus: important transferables between supplementary Islamic education and mainstream schooling. *Journal of Religious Education*, 66(2), 125–138. <https://doi.org/10.1007/s40839-018-0060-1>
- Booren, L. M., Downer, J. T., & Vitiello, V. E. (2012). Observations of Children's Interactions with Teachers, Peers, and Tasks across Preschool Classroom Activity Settings. *Early Education and Development*, 23(4), 517–538. <https://doi.org/10.1080/10409289.2010.548767>
- Broadbent, H. J., Osborne, T., Mareschal, D., & Kirkham, N. Z. (2019). Withstanding the test of time: Multisensory cues improve the delayed retention of incidental learning. *Developmental Science*, 22(1). <https://doi.org/10.1111/desc.12726>
- Broadbent, H. J., White, H., Mareschal, D., & Kirkham, N. Z. (2018). Incidental learning in a multisensory environment across childhood. *Developmental Science*, 21(2). <https://doi.org/10.1111/desc.12554>
- Budiyanti, N., Islamy, M. R. F., Faqihuddin, A., & Albana, H. (2023). EMPOWERING THE ROLE OF WOMEN AS MADRASATUL ULA WITH ULUL SCIENTIFIC CHARACTERISTICS THROUGH THE UMMAHAT COUNCIL OF TA 'LIM QOSHRUL MUTTAQIN PROGRAM. *IPS : JURNAL PENGABDIAN DAN PEMBERDAYAAN SOSIAL KEMANUSIAAN*, 1(1), 34–45. <https://ejournal.upi.edu/index.php/IPS-JPPSK/article/view/61783>
- Demina, D., Rexy, T., & Danyl, A. (2022). The Use of Quranic Learning Strategies Through the Wafa Method in Elementary Schools. *Journal International Inspire Education Technology*, 1(2), 62–73. <https://doi.org/10.55849/jiuet.v1i2.91>
- Emerson, R. W. (2021). Convenience Sampling Revisited: Embracing Its Limitations Through Thoughtful Study Design. *Journal of Visual Impairment and Blindness*, 115(1), 76–77. <https://doi.org/10.1177/0145482X20987707>
- Faqihuddin, A. (2024a). Media Pembelajaran PAI: Definisi, Sejarah, Ragam dan Model Pengembangan. *IDAROTUNA: Jurnal Manajemen Pendidikan Islam*, 1(1), 1–15. <https://doi.org/10.29313/idarotuna.v1i1>
- Faqihuddin, A. (2024b). Metamorfosis Ruang Belajar PAI Era Society 5.0: Dari Kelas Konvensional Menuju Kelas Digital. In *Pendidikan & Pembelajaran Era Society 5.0* (hal. 13–17). Alifba Media. <https://www.researchgate.net/publication/380069575>
- Faqihuddin, A., & Nugraha, R. H. (2023). Model Pendidikan Muslim Millennial Parents dalam Membina Akhlak Generasi Alpha. *Jurnal Obsesi : Jurnal Pendidikan Anak Usia Dini*, 7(6), 7785–7799. <https://doi.org/10.31004/obsesi.v7i6.4884>
- Faqihuddin, A., & Romadhon, F. (2023). Diferensiasi Konseptual dan Praktis Pendidikan Islam, Pendidikan Islami dan Pendidikan Agama Islam. *TAKLIM: Jurnal Pendidikan Agama Islam*, 21(2), 119–132. <https://ejournal.upi.edu/index.php/taklim/article/view/67838>
- Faqihuddin, A., & Subakti, G. E. (2022). Realizing Interactive And Fun PAI Learning In The New Normal Era Through The Masquerade Party Method. *International Conference on General Education International Conference on General Education (ICOGEN)*, 58–68.

- <https://www.researchgate.net/publication/366846894>
- Gilchrist, C., Cumberland, A., Walker, D., & Tolcos, M. (2018). Intrauterine growth restriction and development of the hippocampus: implications for learning and memory in children and adolescents. *The Lancet Child and Adolescent Health*, 2(10), 755–764. [https://doi.org/10.1016/S2352-4642\(18\)30245-1](https://doi.org/10.1016/S2352-4642(18)30245-1)
- Graziano, P. A., Reavis, R. D., Keane, S. P., & Calkins, S. D. (2007). The role of emotion regulation in children's early academic success. *Journal of School Psychology*, 45(1), 3–19. <https://doi.org/10.1016/j.jsp.2006.09.002>
- Hanafi, M., Jumiatmoko, Muhammad, F., Wiyono, N., & Ardyanto, T. D. (2021). Quran memorization and early childhood development: A case-control with neuroscience approach. *Bali Medical Journal*, 10(2), 697–700. <https://doi.org/10.15562/bmj.v10i2.2265>
- Haryani, L. D., & Sholeh, M. A. (2019). Efektivitas Metode Talaqqi Dalam Meningkatkan Hafalan Al-Qur'an Peserta Didik Di Sdit Ulul Al-Bab Weleri. *TA'DIBUNA: Jurnal Pendidikan Agama Islam*, 2(2), 47. <https://doi.org/10.30659/jpaa.2.2.47-52>
- Hermawan, W., Nugraha, R. H., & Faqihuddin, A. (2024). *Studi Islam Kaaffah: Studi Islam Komprehensif Integratif*. UPI Press. <https://www.researchgate.net/publication/379248256>
- Ibrahim, F. W., Abdul Rahman, N. F., Abd Rahman, S., Abd Warif, N. M., Harun, D., Ghazali, A. R., Yahya, H. M., Ariffin, F., Mohamad, S., & Ishak, I. (2018). Dietary Intake, Levels of Trace Elements and Intelligence Quotient (IQ) Among Huffaz Students from Selected Tahfiz Schools in Selangor. *Jurnal Sains Kesihatan Malaysia*, 16(Special Issue), 129–136. <https://doi.org/10.17576/jskm-2018-16si-18>
- Iman, T. F. N. (2020). Tradisi Hafalan Al-Qur'an Di Yogyakarta Perspektif Sosiologi Pengetahuan (Kajian Living Qur'an). *Jurnal Ilmiah Al-Mu'ashirah*, 17(1), 107. <https://doi.org/10.22373/jim.v17i1.7909>
- Kutanto, H. (2017). Strategi Programming Dalam Pengemasan Program "Hafiz Indonesia 2015" Rcti Untuk Memperoleh Rating Share Tinggi. *Communication*, 8(2), 41. <https://doi.org/10.36080/comm.v8i2.635>
- Mehta, P., Nair, A., Edappilly, S., Manik, K., & Sahu, S. (2022). A Comprehensive Study of AI-Based Steganalysis Techniques on Image and Text Documents. *Lecture Notes in Networks and Systems*, 318, 53–63. https://doi.org/10.1007/978-981-16-5689-7_5
- Miles, M. B., & Huberman., A. M. (1994). *Qualitative data analysis: An expanded sourcebook*. Sage.
- Mu'min, K., & Tabroni, I. (2023). Interest: Factors for Increasing and Decreasing Memorization Of The Qur'an. *Indonesian Journal of Applied and Industrial Sciences (ESA)*, 2(1), 23–32. <https://doi.org/10.55927/esa.v2i1.2657>
- Muhammad Sufyan As-Tsauri. (2021). Implementasi Metode Tami Otaka Dalam Pembelajaran Hafalan Al-Qur'an Di Tk Pintar Kota Bandung. *Paedagogia: Jurnal Pendidikan*, 10(1), 67–84. <https://doi.org/10.24239/pdg.vol10.iss1.143>
- Murray, M. M., Lewkowicz, D. J., Amedi, A., & Wallace, M. T. (2016). Multisensory Processes: A Balancing Act across the Lifespan. *Trends in Neurosciences*, 39(8), 567–579. <https://doi.org/10.1016/j.tins.2016.05.003>
- Mutathahirin, M., Muliati, I., Hasnah, H., & Oktavia, G. (2022). Ten Students' Motivation in Memorizing Quran: A Case Study at Rumah Quran in Padang Indonesia. *International Journal of Islamic Studies Higher Education*, 1(1), 1–13. <https://doi.org/10.24036/insight.v1i1.86>
- Muthmainah, M., & Usman, A. H. (2022). Family support for young Ḥāfiẓ Al-Qur'ān. *Journal of Early Childhood Care and Education*, 5(1), 27–44. <https://doi.org/10.26555/jecce.v5i1.5974>
- Peng, L., & Chen, K. (2023). Mining library virtual reference service data by using the software NVivo 12. In R. Liang & J. Wang (Ed.), *International Conference on Computer Graphics, Artificial Intelligence, and Data Processing (ICCAID 2022)* (hal. 135). SPIE. <https://doi.org/10.1117/12.2674684>
- Pretorius, E., Naudé, H., & Pretorius, U. (2005). Training the hippocampus and amygdala of preschool children by means of priming tasks: Should parents rather focus on learning of facts than reading

- fairytales? *Early Child Development and Care*, 175(4), 303–312. <https://doi.org/10.1080/0300443042000244073>
- Rahman, A., Nurlela, N., & Suhaeb, F. W. (2022). Mappanre temme: Meaning Construction of Khatam Al-Qur'an Tradition in Buginese Community of South Sulawesi. *Religious: Jurnal Studi Agama-Agama dan Lintas Budaya*, 6(2), 181–194. <https://doi.org/10.15575/rjsalb.v6i2.14267>
- Rahman, M. A., Aribisala, B. S., Ullah, I., & Omer, H. (2020). Association between scripture memorization and brain atrophy using magnetic resonance imaging. *Acta Neurobiologiae Experimentalis*, 80(1), 90–97. <https://doi.org/10.21307/ane-2020-009>
- Rubin, S. J., & Abrams, B. (2015). Teaching Fundamental Skills in Microsoft Excel to First-Year Students in Quantitative Analysis. *Journal of Chemical Education*, 92(11), 1840–1845. <https://doi.org/10.1021/acs.jchemed.5b00122>
- Ruth, A., Wutich, A., & Bernard, H. R. (2023). The Handbook of Teaching Qualitative and Mixed Research Methods. *The Handbook of Teaching Qualitative and Mixed Research Methods*. <https://doi.org/10.4324/9781003213277>
- Sabrina, V., Oktavia, G., Albizar, A., Susanti, H., AR, F. M., & Suryani, Y. (2022). Eight Supporting Factors for Students Success in Quran Memorization. *Khalifa: Journal of Islamic Education*, 6(1), 73. <https://doi.org/10.24036/kjje.v6i1.202>
- Said, M. (2017). The Level of Using Information Storage Strategies for Memorizing the Holy Qur'an by the Koranic School Students in the City of Batna in Algeria. *Journal of Educational and Psychological Studies [JEPS]*, 11(1), 221–241. <https://doi.org/10.53543/jeps.vol11iss1pp221-241>
- Saquib, N., Saquib, J., Alhadlag, A., Albakour, M. A., Aljumah, B., Sughayyir, M., Alhomidan, Z., Alminderej, O., Aljaser, M., Al-Dhlawiy, A. M., & Al-Mazrou, A. (2017). Health benefits of Quran memorization for older men. *SAGE Open Medicine*, 5. <https://doi.org/10.1177/2050312117740990>
- Setiadi, Y. (2023). The Sundanese Muslim Perceptions toward Reciting Quran in Debus Art Show. *AKADEMIK: Jurnal Mahasiswa Humanis*, 3(1), 49–58. <https://doi.org/10.37481/jmh.v3i1.581>
- Sholihah, A. (2021). Strategi Kreatif Produser Hafiz Indonesia RCTI. *Jurnal at-Taghyir: Jurnal Dakwah dan Pengembangan Masyarakat Desa*, 3(2), 321–340. <https://doi.org/10.24952/taghyir.v3i2.4195>
- Subakti, G. E., & Faqihuddin, A. (2022). Analysis Of Student's Moral Degradation To Teachers In Online Learning Systems Based On Islamic Perspective. *International Conference on General Education International Conference on General Education (ICOGEN)*, 235–245. <https://www.researchgate.net/publication/366848002>
- Supriadi, U., Islamy, M. R. F., & Faqihuddin, A. (2023). Internalization of Wasathiyah Values in Efforts to Enhance the Religiosity and Tolerance of Students Based on Mentoring: An Exploratory Study of the UPI Tutorial Program. *Jurnal Iqra': Kajian Ilmu Pendidikan*, 8(2), 222–239. <https://doi.org/10.25217/ji.v8i2.2747>
- Syaifulloh, M. K., Hanafi, M., Ardyanto, T. D., Wiyono, N., Budianto, P., & Jumiatmoko, J. (2023). Electroencephalography (EEG) Frontal Alpha Asymmetry Index as an Indicator of Children's Emotions in the Three Quran Learning Methods: Visual, Auditory, and Memory. *Iranian Journal of Psychiatry*, 18(1), 93–96. <https://doi.org/10.18502/ijps.v18i1.11417>
- Tarmilia, T., Fadjaritha, F., Istiqomah, I. W., Purwandari, E., & Hutagalung, F. D. (2022). Learning and Memory of Early Childhood Tahfiz Quran: A Systematic Review. *Jurnal Obsesi : Jurnal Pendidikan Anak Usia Dini*, 6(6), 5913–5922. <https://doi.org/10.31004/obsesi.v6i6.1707>
- Thoft, D. S., & Ward, A. (2022). "Just ask me what it means to live with dementia" – people with mild dementia's strategies and techniques shared through in-depth qualitative interviews. *Journal of Clinical Nursing*, 31(13–14), 1725–1737. <https://doi.org/10.1111/jocn.15596>
- Ulummudin, U. (2020). Memahami Hadis-hadis Keutamaan Menghafal al-Qur'an dan Kaitannya dengan Program Hafiz Indonesia di RCTI (Aplikasi Hermeneutika Nasr Hamid Abu Zaid). *AL QUDS : Jurnal Studi Alquran dan Hadis*, 4(1), 57. <https://doi.org/10.29240/almuds.v4i1.1103>
- Warren, D. E., Rangel, A. J., Christopher-Hayes, N. J., Eastman, J. A., Frenzel, M. R., Stephen, J. M., Calhoun, V. D., Wang, Y. P., & Wilson, T. W. (2021). Resting-state functional connectivity of the

- human hippocampus in periadolescent children: Associations with age and memory performance. *Human Brain Mapping*, 42(11), 3620–3642. <https://doi.org/10.1002/hbm.25458>
- Yamanaka, Y., & Shoji, K. (2019). Improvement of Three Days Course with Student Surveys using Google® Forms - A Case Study of “Introduction to Environmental Science” in Hokkaido University. *Proceedings - 2019 8th International Congress on Advanced Applied Informatics, IIAI-AAI 2019*, 434–437. <https://doi.org/10.1109/IIAI-AAI.2019.00095>