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Movement and Song as a Multisensory Strategy to Enhance Hadith Memorization in Early Childhood

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ABSTRACT:
Hadith memorization in early childhood education is still largely dominated by repetitive and teacher-centered instructional practices that limit children's engagement and holistic learning development. Although previous studies have reported positive effects of movement-based or song-based strategies, most investigations have examined these approaches separately. Empirical evidence that integrates movement and song as a unified multisensory instructional strategy in early childhood hadith learning remains limited, indicating the need for further investigation. This study aims to examine the effectiveness of integrating movement and song as a multisensory strategy in enhancing early childhood hadith memorization across cognitive, affective, and psychomotor domains. A Classroom Action Research design was employed involving 22 children aged 4–5 years and conducted over two instructional cycles. The learning intervention integrated simple body movements and rhythmic songs aligned with the meaning and sequence of selected short hadiths. Data were collected through structured observation sheets assessing memorization accuracy, learning engagement, and movement coordination, and analyzed using percentage-based achievement indicators supported by descriptive qualitative analysis. The results indicate consistent improvement across all domains. Cognitive achievement increased from 23% to 77%, affective engagement improved from 68% to 86%, and psychomotor performance increased from 64% to 82%. The novelty of this study lies in its empirical evidence that the integration of movement and song functions as a coherent multisensory pedagogical framework rather than as separate instructional techniques, offering a developmentally appropriate alternative to conventional rote memorization practices in early childhood Islamic education.

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1. Introduction

Hadith learning in early childhood education continues to face substantive pedagogical challenges, particularly related to the dominance of repetitive and teacher-centered instructional practices. In many early childhood classrooms, hadith memorization is still conducted through verbal repetition that prioritizes accuracy over engagement, resulting in limited student involvement during the learning process (Dewi & Titrayani, 2023; Hadzami & Maknun, 2022; Pangestuti & Misbah, 2025). Empirical evidence suggests that such approaches often fail to sustain children's attention and reduce opportunities for meaningful interaction with learning content (Afiati, 2025; Hanita, Maulida, et al., 2022; Mahmudah, 2025). When children are positioned as passive recipients of instruction, memorization tends to become mechanical and short-lived (Gusmita et al., 2025; Hasibuan & Rahimah, 2024; Widya & Nurhasanah, 2024). This condition is especially problematic in the context of hadith learning, which involves structured verbal texts that require sustained focus and repeated exposure. Consequently, the effectiveness of hadith memorization in early childhood classrooms is closely tied to the appropriateness of instructional strategies used by teachers (Faqihuddin & Firmansyah, 2024; Hasan et al., 2025; I. Juniasih, 2022).

Recent studies in early childhood education indicate that movement-based instructional strategies offer significant advantages in supporting children's memorization processes. Through bodily involvement, children are able to encode information using kinesthetic experiences, which strengthens recall and supports longer-term retention (Hanita, Syafei, et al., 2022; Lerch, 1994; M. Mukhtar et al., 2023). Research in early childhood Islamic

education demonstrates that movement-based learning increases children's engagement and improves their ability to memorize short hadiths by reducing cognitive fatigue associated with verbal repetition alone (Afiati, 2025; Hafidhoh & Fatahillah, 2024; Pangestuti & Misbah, 2025). In addition to cognitive outcomes, movement-based strategies contribute to psychomotor development and self-regulation, both of which are essential for effective learning participation (Gusmita et al., 2025; Lee & Liu, 2025; Mahmudah, 2025). These findings highlight the pedagogical value of integrating physical activity into memorization-based learning. However, movement-focused approaches are often implemented without structured auditory reinforcement, which may limit their overall effectiveness (Hasan et al., 2025; R. Juniasih, 2022; Widya & Nurhasanah, 2024).

In contrast, song-based learning strategies have been widely recognized for their role in enhancing memorization through rhythm, melody, and repetition. Songs enable children to internalize verbal material by embedding information within enjoyable auditory patterns that promote emotional engagement and learning motivation (Hati, 2025; Mahmudah, 2025; Pangestuti & Misbah, 2025). Empirical studies show that singing activities improve recall accuracy and increase children's enthusiasm when learning structured content (Hanita, Maulida, et al., 2022; Hasan et al., 2025; Widya & Nurhasanah, 2024). Within early childhood Islamic education, song-based instruction has been applied to memorizing religious content such as short surahs and hadiths, leading to more positive learning attitudes (Afiati, 2025; Hafidhoh & Fatahillah, 2024; Zulfida et al., 2024). Nevertheless, most song-based approaches emphasize auditory stimulation without systematically integrating meaningful physical movement. As a result, auditory and kinesthetic modalities are often treated as separate instructional elements rather than complementary components of a holistic learning strategy (Faqihuddin & Firmansyah, 2024; Gusmita et al., 2025; Hasibuan & Rahimah, 2024).

Although movement-based and song-based strategies have each demonstrated positive effects on early childhood memorization, existing research predominantly examines these approaches in isolation. Very limited studies have explored the integration of movement and song as a single multisensory instructional strategy, particularly in the context of hadith memorization (Afiati, 2025; Mahmudah, 2025; Pangestuti & Misbah, 2025). From a multisensory learning perspective, combining auditory and kinesthetic modalities allows children to process information through multiple channels simultaneously, thereby strengthening memory encoding and retrieval processes (Faqihuddin & Firmansyah, 2024; Hasan et al., 2025; Lerch, 1994). Furthermore, prior studies tend to focus primarily on cognitive outcomes while giving insufficient attention to affective engagement and psychomotor involvement, despite their central role in early childhood learning experiences (Hanita, Maulida, et al., 2022; Widya & Nurhasanah, 2024; Zulfida et al., 2024). This imbalance restricts a comprehensive understanding of how instructional strategies influence children's overall learning development. These limitations indicate a clear and specific research gap that warrants empirical investigation (Gusmita et al., 2025; Mahmudah, 2025; R. Mukhtar et al., 2023).

In response to this gap, the present study aims to examine the effectiveness of integrating movement and song as a multisensory strategy in early childhood hadith learning. Specifically, this study investigates how the integration of movement and song influences children's memorization accuracy, learning engagement, and psychomotor performance (Hasibuan & Rahimah, 2024; Hati, 2025; Pangestuti & Misbah, 2025). By addressing the limitations of previous single-modality approaches, this research seeks to provide empirical evidence on the value of multisensory instructional strategies in early childhood Islamic education (Afiati, 2025; Faqihuddin & Firmansyah, 2024; Shantappa et al., 2023). The findings are expected to contribute both theoretically and practically by offering insights into more effective and engaging approaches to hadith memorization. Ultimately, this study supports the development of instructional practices that align more closely with early childhood learning characteristics and pedagogical needs (Gusmita et al., 2025; Hasan et al., 2025; Mahmudah, 2025).

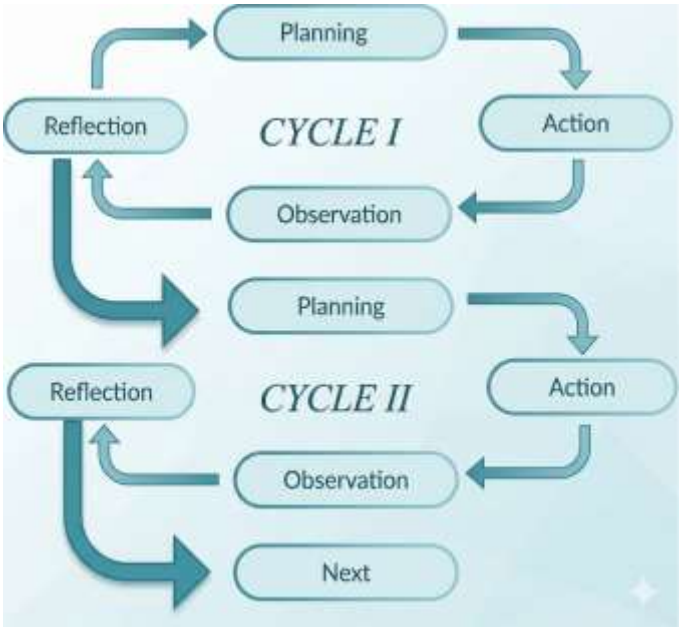
Although movement-based and song-based learning strategies have been widely applied in early childhood education, particularly in religious learning contexts, existing studies including those published in Jurnal Pendidikan Usia Dini have predominantly examined these approaches as separate instructional techniques or focused on single learning domains, primarily cognitive outcomes (I. Juniasih, 2022; Suyatno et al., 2022; Widya & Nurhasanah, 2024) . Empirical research that conceptualizes and implements movement and song as a unified multisensory pedagogical system and simultaneously examines cognitive, affective, and psychomotor domains in early childhood hadith learning remains limited (M. Mukhtar et al., 2023). The novelty of this study lies in its systematic integration of movement and song into a coherent instructional framework, in which bodily movement functions as an embodied representational cue for meaning-making while song provides rhythmic and sequential structure for memorization. By evaluating this integrated strategy through classroom-based intervention, this study offers new empirical evidence on how multisensory integration supports holistic hadith memorization processes in early childhood classrooms.

2. Method

This study employed a Classroom Action Research (CAR) design to examine the effectiveness of integrating movement and song as a multisensory strategy in early childhood hadith learning. CAR was selected because it enables systematic improvement of instructional practices through iterative cycles of planning, action, observation, and reflection, while maintaining close alignment with classroom realities (Kemmis, S., & McTaggart, 1988). The use of this design is consistent with the study's objective of evaluating instructional effectiveness through direct intervention rather than descriptive observation. Established CAR procedures were applied without extensive elaboration, as the methodological framework is well documented in educational research literature (Acharya et al., 2021).

The study was conducted in an early childhood education setting during one academic semester and involved 22 children aged 4–5 years. The intervention was implemented over two action cycles, each consisting of several instructional sessions. The learning activities integrated simple body movements and rhythmic songs designed to represent the meaning and sequence of selected short hadiths. The instructional design emphasized consistency between learning objectives, multisensory learning principles, and assessment indicators, rather than detailed procedural routines. This approach ensured that the intervention remained focused on instructional effectiveness rather than procedural variation.

Figure 1: Action Research Model



Data collection focused on three developmental domains that are central to early childhood learning outcomes: cognitive, affective, and psychomotor aspects. Cognitive data measured children's ability to memorize hadiths accurately and sequentially. Affective data captured children's engagement, enthusiasm, and active participation during learning activities. Psychomotor data assessed children's ability to imitate and coordinate movements in accordance with song lyrics and hadith meanings. Data were collected using structured observation sheets completed collaboratively by teachers and researchers, a method commonly applied in classroom-based early childhood research (M. Mukhtar et al., 2023).

To ensure evaluative clarity, explicit performance benchmarks were established prior to data collection. The intervention was considered successful when at least 75% of children achieved the expected indicators in each developmental domain by the end of Cycle II. This benchmark aligns with commonly used achievement standards in classroom action research and early childhood instructional studies (Hanita, Maulida, et al., 2022; Kemmis, S., & McTaggart, 1988). The benchmark functioned as an objective reference for determining instructional effectiveness and guiding reflective improvements between cycles.

The criteria for success in each developmental domain were defined as follows. Cognitive success was achieved when children were able to recite selected short hadiths in correct sequence with minimal teacher prompting. Affective success was indicated by children's sustained attention, active participation, and positive emotional responses during learning activities. Psychomotor success was determined by children's ability to perform coordinated movements that corresponded accurately to the rhythm and meaning of the songs. These criteria reflect widely accepted indicators of learning performance in early childhood education and were applied consistently across research cycles to support valid comparison of outcomes (Shantappa et al., 2023).

Data analysis employed descriptive quantitative and qualitative techniques. Quantitative data were analyzed using percentage-based achievement indicators to identify trends in performance improvement across cycles. Qualitative data derived from observation notes were used to support interpretation of quantitative findings and inform reflective decision-making. The analytical process followed the established stages of data reduction, data

display, and conclusion drawing as proposed by (Miles et al., 2014), without extended procedural explanation, as this framework is well established and widely referenced in qualitative educational research.

Methodological coherence was maintained by ensuring direct alignment between the research objectives, CAR design, and analytical techniques. The objective of examining the effectiveness of a multisensory movement–song strategy was operationalized through iterative instructional cycles, while the assessment criteria directly reflected the targeted cognitive, affective, and psychomotor outcomes. This alignment ensured that data collection and analysis procedures were methodologically consistent and supported valid interpretation of the research findings

3. Result

3.1 Result

The results indicate that the integration of movement and song as a multisensory strategy resulted in consistent improvements in early childhood hadith memorization across cognitive, affective, and psychomotor domains. As summarized in Table 1 and Table 2, learning outcomes increased progressively from the initial condition to the end of the intervention. The trend of improvement is also clearly illustrated in Figure 1, which shows upward patterns across all observed domains. Importantly, the improvements exceeded the predefined success benchmark of 75% in the final phase of implementation. These findings suggest that the applied instructional strategy influenced learning outcomes in a systematic and measurable manner. Rather than occurring sporadically, progress was observed across most participants. The following subsections present detailed results for each developmental domain, emphasizing key patterns rather than procedural stages.

Table 1 cycle 1 data result

No.	Development Indicators	Number of children	Success Rate
1	Cognitive aspect	11 children out of 22 children	50%
2	Affective aspect	15 children out of 22 children	68%
3	Psychomotor aspects	14 children out of 22 children	64%

In the cognitive domain, children's ability to memorize hadiths sequentially showed a marked increase over the course of the intervention. As presented in Table 1, only 23% of children demonstrated sequential memorization ability at the initial observation stage. This proportion increased to 50% in Cycle I and reached 77% in Cycle II, as shown in Table 2. The data indicate a substantial gain in children's ability to recall hadiths in correct order. Observational records further reveal that children made fewer sequencing errors and required less teacher prompting during recitation activities. Several children were able to initiate recitation independently, reflecting improved recall confidence. Errors that persisted were primarily related to pronunciation rather than sequence, indicating improved structural understanding of the text. These findings confirm that the instructional strategy effectively supported cognitive mastery of hadith memorization.

A closer examination of cognitive performance reveals qualitative changes that complement the quantitative trends. Children demonstrated longer stretches of uninterrupted recitation and showed greater consistency in recalling the same sequence across learning sessions. As illustrated indirectly in Figure 1, the cognitive improvement curve shows a steeper increase between Cycle I and Cycle II, suggesting that refinements in instructional delivery enhanced learning effectiveness. Children appeared less hesitant and more fluent when reciting hadiths, indicating increased familiarity with the text structure. Some children were observed using movements as recall cues, especially when transitioning between sentences. This behavior reflects children's independent use of the learning strategy beyond teacher guidance. The combination of quantitative gains and qualitative behavioral changes indicates a meaningful improvement in cognitive memorization performance.

Table 2. Cycle 2 data result

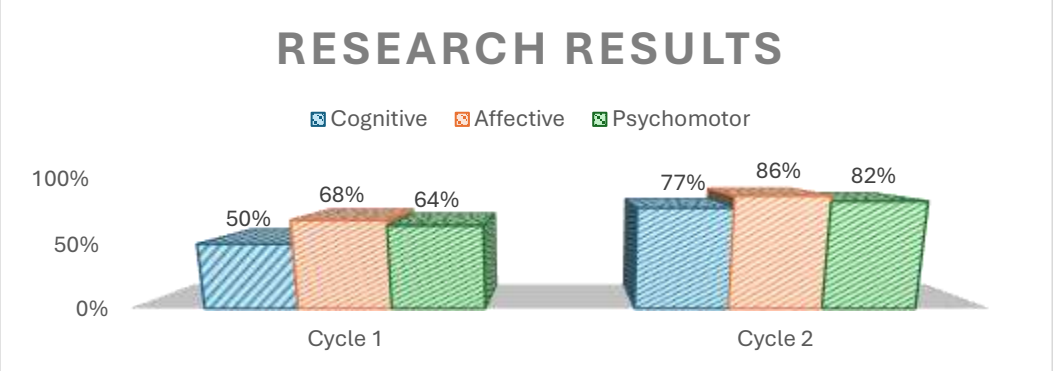
No.	Development Indicators	Number of children	Success Rate
1	Cognitive aspect	17 children out of 22 children	77%
2	Affective aspect	19 children out of 22 children	86%
3	Psychomotor aspects	18 children out of 22 Children	82%

In the affective domain, the results show a significant increase in children's engagement and participation during learning activities. As shown in Table 1, 68% of children displayed positive affective behaviors in Cycle I, which increased to 86% in Cycle II (Table 2). This trend is visually reinforced in Figure 1, where the affective performance line shows consistent upward movement. Children demonstrated greater enthusiasm, sustained attention, and willingness to participate in singing and movement activities. Passive behaviors, such as remaining silent or disengaged during memorization tasks, were observed less frequently. Children also appeared more confident when performing in front of peers. These findings indicate that the learning environment became increasingly supportive and motivating.

Further affective analysis shows changes in classroom interaction patterns that support the quantitative data. Several children voluntarily participated as song or movement leaders during learning sessions, a behavior rarely observed prior to the intervention. Peer encouragement increased, and children were more responsive to teacher feedback and praise. The frequency of off-task behavior decreased, indicating improved emotional regulation and

focus. Children were also willing to repeat activities multiple times without showing signs of boredom. The consistency of these behaviors across sessions suggests that affective engagement was sustained rather than situational. These findings demonstrate that the multisensory strategy fostered a positive emotional climate that supported learning continuity.

The psychomotor domain also exhibited significant improvement following the implementation of movement–song integration. According to Table 1, 64% of children demonstrated adequate psychomotor performance in Cycle I, which increased to 82% in Cycle II as shown in Table 2. This upward trend is also evident in Figure 1, where psychomotor development follows a pattern similar to cognitive and affective gains. Children showed improved coordination, balance, and control when performing movements aligned with song lyrics. Movements became more synchronized and consistent across sessions. Children required less modeling from the teacher to perform movement sequences accurately. These results indicate that the instructional strategy effectively supported psychomotor development.



This study finds that integrating movement and song in early childhood hadith learning does more than increase memorization scores; it fundamentally reshapes the learning process itself. The findings indicate that movement functions as a representational medium for hadith meaning, enabling children to connect verbal texts with embodied experiences. Rather than merely imitating gestures, children gradually adjusted movement tempo, intensity, and expression in accordance with the content of the hadith, reflecting processes of meaning-making and self-regulation. Moreover, the consistent reproduction of movement sequences across learning sessions demonstrates that psychomotor patterns were internalized alongside verbal memorization, supporting more stable and sustained recall. The findings also reveal that psychomotor engagement played a role in maintaining children's attention and participation throughout learning activities.

Taken together, these results contribute to scientific understanding by demonstrating that hadith memorization in early childhood operates through an embodied multisensory learning mechanism, rather than through verbal repetition alone, thereby extending theoretical perspectives on multisensory and embodied learning within the context of early childhood Islamic education. The convergence of these outcomes suggests that the instructional strategy supported holistic learning development. Importantly, the final achievement levels in all domains surpassed the established success criteria. These results confirm that the movement–song integration strategy was effective in enhancing early childhood hadith memorization within the classroom context. The consistency between numerical data and observational findings strengthens the validity of the reported outcomes.

3.2 Discussion

The improvement in children's cognitive ability to memorize hadith sequentially indicates that the integration of movement and song provides substantial support for memory encoding and retrieval processes. This finding suggests that memorization outcomes are not merely the result of repetition frequency, but are strongly influenced by how learning content is structured and experienced by learners. Rhythmic songs help children perceive hadith text as a coherent and predictable sequence rather than fragmented verbal units, making recall more manageable. Simultaneously, body movements function as kinesthetic markers that assist children in remembering the order of sentences when verbal recall falters. This mechanism aligns with multisensory learning theory, which emphasizes that learning involving multiple sensory channels strengthens memory traces and recall accuracy (Shonkoff & Phillips, 2021; Suyatno et al., 2022; Y. Zhang et al., 2024). Compared with single-modality instruction, integrated multisensory strategies provide redundant cues that mutually reinforce learning (Shantappa et al., 2023; Suryaratri et al., 2019).

A deeper examination of the cognitive findings suggests that improvement occurs through two primary mechanisms: informational structuring and retrieval cueing. Songs provide stable rhythmic patterns that support anticipation and sequencing, which are critical for memorizing structured verbal texts such as hadith. When children can predict the flow of information through melody, cognitive effort shifts from remembering individual words to maintaining sequence coherence. Movement, on the other hand, offers embodied retrieval cues that trigger verbal recall through physical action. This process reflects the embodied cognition perspective, which posits that cognitive processes are closely linked to bodily experience and sensorimotor engagement (Jung & Park, 2018; Utami & Fakhriyah, 2021). Prior studies that emphasized hand movements in hadith learning demonstrated improved engagement but did not consistently highlight the role of musical structure in sequencing (Hanita, Syafei, et al., 2022). Similarly, parenting-based movement interventions improved memorization but lacked systematic musical

integration (R. Mukhtar et al., 2023). The present findings extend these studies by demonstrating that combining rhythmic structure with embodied cues yields stronger memorization outcomes.

Beyond cognitive gains, the findings reveal a significant enhancement in children's affective engagement during hadith learning. Increased enthusiasm, sustained attention, and active participation indicate that movement–song integration transformed memorization from a demanding task into an enjoyable learning experience. Music plays a central role in eliciting positive emotions and intrinsic motivation, while collective movement activities create a socially supportive classroom atmosphere. Children who may struggle with verbal recall alone are still able to participate meaningfully through singing and movement, fostering a sense of competence and belonging. Positive emotional experiences are known to enhance learning persistence and reduce anxiety in early childhood settings (Fauziyah & Ratnasari, 2023; R. Juniasih, 2022; Lerch, 1994). Consistent with JPUD publications, play-based and music-integrated instruction has been shown to significantly improve children's motivation and engagement in value-based learning contexts (Suyatno et al., 2022).

The affective improvements observed in this study can be further explained through changes in attention span, classroom climate, and teacher–child interaction. Movement–song integration breaks memorization activities into shorter, repetitive, and dynamic segments, allowing children to maintain focus without cognitive overload. Variations in tempo, repetition styles, and movement patterns contribute to a lively classroom environment that minimizes off-task behavior. Additionally, this strategy enables teachers to provide immediate and natural positive reinforcement, such as praise during movement or singing, which strengthens children's motivation to participate. Emotional expressions such as smiling, laughter, and expressive gestures should not be viewed as mere excitement, but as indicators of meaningful affective engagement with learning content. Similar findings have been reported in studies emphasizing movement and song as effective strategies for enhancing motivation and socio-emotional development in early childhood (Kevin Julian et al., 2024; Utami & Fakhriyah, 2021).

The improvement in the psychomotor domain further underscores the pedagogical value of integrating movement into memorization-based learning. Children demonstrated better motor coordination, body control, and expressive movement when actions were aligned with song lyrics and hadith meanings. These behaviors indicate that children were not only imitating movements, but also internalizing meaning through bodily representation. Embodied cognition theory explains that physical action can serve as a bridge between abstract verbal content and concrete experience, thereby strengthening comprehension and recall (Jung & Park, 2018; Suryaratri et al., 2019). In classroom practice, this was evident when children used consistent movements as cues to remember specific segments of hadith text. Previous studies on movement-based learning reported improvements in motor skills but did not explicitly link psychomotor gains to memorization accuracy (Hanita, Maulida, et al., 2022; Octa & Jauhari, 2021). The present study extends this body of research by demonstrating that psychomotor engagement directly contributes to cognitive memorization in early childhood religious learning.

The principal strength of this study lies in its cross-domain findings, where cognitive, affective, and psychomotor improvements occurred simultaneously. This pattern supports the argument that early childhood learning is inherently holistic, with each developmental domain influencing the others. Cognitive memorization becomes more effective when children are emotionally engaged and physically involved, while psychomotor activities provide concrete cues that sustain recall. JPUD literature consistently emphasizes the importance of integrating play, movement, and music to enrich early childhood learning experiences (I. Juniasih, 2022; Suyatno et al., 2022). Compared to studies that assessed movement or song independently, the integrated approach employed in this study is more likely to produce comprehensive learning benefits (R. Mukhtar et al., 2023). Thus, the contribution of this research extends beyond confirming the effectiveness of movement and song, highlighting instead the critical role of instructional integration in multisensory learning.

Despite these positive findings, a critical interpretation must consider factors that may moderate the effectiveness of the movement–song strategy. The quality of song composition, the appropriateness of movement design, and the consistency of teacher reinforcement may influence learning outcomes. Individual differences among children, such as musical preference, motor readiness, and self-regulation skills, may also affect the pace of improvement. Furthermore, as the study employed a classroom action research design, its findings are most robust within the context of instructional improvement rather than causal comparison. Future research employing experimental designs and longer observation periods is therefore recommended to examine long-term retention and comparative effectiveness with other instructional strategies (M. Mukhtar et al., 2023; Shantappa et al., 2023; J. Zhang et al., 2024). Nevertheless, the present findings provide strong empirical support for movement–song integration as a developmentally appropriate and effective approach to early childhood hadith learning.

4. Conclusion

This study concludes that integrating movement and song as a multisensory instructional strategy is an effective approach to enhancing hadith memorization in early childhood education. The findings show that this integrated strategy supports learning holistically by simultaneously improving memorization accuracy, affective engagement, and psychomotor performance, rather than focusing on cognitive outcomes alone. The study demonstrates that combining movement and song as a unified pedagogical framework yields more balanced and meaningful learning outcomes than implementing these methods separately. From a theoretical perspective, the findings reinforce multisensory and embodied learning views by showing that hadith memorization involves the interaction of cognitive processing, bodily engagement, and emotional experience, challenging traditional repetition-based approaches. Practically, the results suggest that early childhood educators, particularly in Islamic educational settings, should design hadith learning activities that integrate purposeful movement and song aligned with textual meaning. Nevertheless, as this study was conducted within a classroom action research context and focused on short-term outcomes, further research is recommended to examine long-term retention and to compare multisensory strategies with other instructional approaches using broader research designs.

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