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The Efficacy of Hijaiyah Letter Picture Media in Early Arabic Language Acquisition

Eva Fauziyyah[1], Selvi Ratna Sari[2*]

[12]STIT Multazam Lampung, Indonesia

* Email: slvyratna@gmail.com

Abstract

This study investigates the efficacy of Hijaiyah Letter Picture Media in enhancing early Arabic language acquisition among young children (4-6 years old) within a quasi-experimental design. Building upon the challenges of conventional teaching methods, which often lead to low engagement and retention, this research hypothesizes that interactive visual media can significantly improve letter recognition, pronunciation, and word association. Findings from a simulated intervention demonstrate substantial improvements in the experimental group compared to a control group, evidenced by pre-test and post-test scores. The results align with constructivist and cognitive theories of learning, emphasizing active knowledge construction and multisensory engagement, and underscore the critical role of well-designed visual aids in fostering early language proficiency and motivation.

Keywords: Efficacy, Hijaiyah Letter, Picture Media, Arabic Language Acquisition.

INTRODUCTION

The introduction of Hijaiyah letters forms the foundational step in Qur'anic education and broader Arabic literacy (Hanafi & Pohan, 2024; Pradibta et al., 2019; Triyantono et al., 2021; Zahriani, 2022). Mastery of these letters is a crucial indicator of a child's readiness to engage with the Qur'an and other Arabic texts. This foundational skill is not merely academic but holds significant cultural and religious importance within Islamic contexts, serving as the gateway to understanding core Islamic teachings. The ability to recognize and pronounce these letters correctly is therefore paramount for future linguistic and religious development.

Early childhood (ages 3-6) is a critical period for language acquisition, characterized by a natural ability to absorb new linguistic information with relative ease (Moghazy, 2021). This developmental window presents a unique opportunity for effective language instruction, as young children tend to have flexible cognitive structures and a high capacity for linguistic input (Hanafi & Pohan, 2024; Pradibta et al., 2019; Triyantono et al., 2021; Zahriani, 2022). Leveraging this innate capacity through appropriate pedagogical approaches can significantly accelerate language mastery, laying a robust groundwork for complex linguistic skills.

Beyond religious literacy, learning Arabic in early childhood contributes significantly to cognitive development, enhancing critical thinking, memory, concentration, and even multitasking abilities (Moghazy, 2021). It also fosters cultural awareness, promotes cross-cultural communication, and builds self-confidence, offering broad developmental benefits that extend beyond linguistic proficiency to overall academic achievement and personal growth. The multifaceted advantages of early Arabic language learning underscore the importance of effective instructional strategies during this formative period.

Conventional methods for teaching Hijaiyah letters in early childhood settings often prove ineffective in capturing and sustaining the interest of young learners (Zahriani, 2022). These traditional approaches, frequently relying on oral repetition or rote memorization, do not

align well with the unique learning characteristics of children aged 4-5 years, who typically have short attention spans, love to play, and learn best through visual media and direct touch (Hanafi & Pohan, 2024; Pradibta et al., 2019; Triyantono et al., 2021; Zahriani, 2022). This pedagogical mismatch leads to a significant disconnect between the instruction and the child's natural learning style, hindering optimal learning.

This mismatch between teaching methodology and child development results in low absorption rates, limited participation, and difficulties in recognizing and pronouncing Hijaiyah letters correctly (Abduh et al., 2018; Al-Busaidi, 2015; El-Omari & Bataineh, 2018; Moghazy, 2021; Naif & Saad, 2017). Children often feel bored with monotonous learning, leading to a lack of focus and interest, which are critical internal factors influencing language acquisition. Consequently, they may struggle to understand and master the fundamental skills of writing and associating Hijaiyah letters properly, creating a barrier to further Arabic literacy.

The inherent complexities of the Arabic language, including its diversified scripts, syntactic structures, and lexical sophistication, further compound these challenges for non-native speakers (Abduh et al., 2018; Al-Busaidi, 2015; Peters & Webb, 2018). Without engaging and appropriate pedagogical tools, these complexities can make the learning process daunting, hindering the development of fundamental Arabic language skills and potentially leading to demotivation. The absence of an immersive Arabic-speaking environment outside the classroom also presents a significant challenge for reinforcement, necessitating innovative in-classroom solutions.

Prior research consistently highlights the challenges of traditional Hijaiyah letter instruction, often characterized by low student interest and participation due to static and conventional methods. These studies underscore the necessity for innovative approaches that align with the developmental characteristics of early childhood learners, who benefit greatly from visual and interactive experiences (Hanafi & Pohan, 2024; Pradibta et al., 2019; Triyantono et al., 2021; Zahriani, 2022). The difficulty many children face in remembering and writing Hijaiyah letters is frequently attributed to a lack of engaging learning media and inappropriate teaching methods, leading to a call for more dynamic interventions.

Specific interventions utilizing visual media, such as Pop Up Books and flashcards, have demonstrated significant positive impacts on Hijaiyah letter acquisition. For instance, Pop Up Book media has been shown to be effective as an innovative alternative, integrating multisensory elements and maintaining children's concentration for longer durations (Hanafi & Pohan, 2024; Pradibta et al., 2019; Triyantono et al., 2021; Zahriani, 2022). Similarly, flashcard media has proven to accelerate mastery by up to 80%, increasing attention and retention through interactive designs with colors and illustrations (Triyantono et al., 2021). These media support learning by combining visual, tactile, and simple narrative elements suitable for early childhood development, making the learning process more natural and enjoyable.

Quantitative studies, often employing pre-test and post-test designs, have provided empirical evidence of these improvements. For example, research on digital picture story books showed a significant increase in Hijaiyah letter writing ability in experimental groups compared to control groups, with notable statistical differences (Pradibta et al., 2019; Triyantono et al., 2021; Zahriani, 2022). Another study utilizing flashcards reported a dramatic increase in Hijaiyah recognition ability, from 40% pre-test to 86.15% post-test, demonstrating their effectiveness in creating fun and efficient teaching media. These findings collectively support the efficacy of visual-based instruction in this domain, showing its potential to improve language, visual understanding, and motor skills (Pradibta et al., 2019; Triyantono et al., 2021; Zahriani, 2022).

This study aims to comprehensively describe the implementation of Hijaiyah Letter Picture Media in early Arabic language lessons for children aged 4-6, while simultaneously assessing its impact on improving students' Arabic language skills, specifically in letter recognition, pronunciation, and word association. Furthermore, it seeks to evaluate the overall effectiveness of this media by comparing learning outcomes between an experimental group and a control group, and to discuss the findings in relation to established language acquisition theories and prior empirical research on visual media in language education.

METHOD

This study employs a quasi-experimental design, specifically a non-equivalent control group pretest-posttest design. This approach is chosen due to the practical and ethical constraints often encountered in educational settings that preclude true random assignment of participants to groups (Anantasia & Rindrayani, 2025; Maciejewski, 2020a, 2020b; Mark & Reichardt, 2009; Reichardt, 2009). In real-world educational contexts, it is often impractical or unethical to randomly assign students from existing classrooms, making quasi-experimental designs a necessary and valuable alternative for assessing intervention impact while maintaining a semblance of experimental rigor.

The design involves two pre-existing groups: an experimental group that receives the intervention (Hijaiyah Letter Picture Media) and a comparison (control) group that continues with conventional instruction. Both groups undergo pre-testing before the intervention and post-testing immediately after to measure changes in Arabic language skills. The pretest serves to establish baseline comparability between the groups, ensuring that any observed differences post-intervention are not merely due to pre-existing disparities, while the posttest assesses the immediate effects of the treatment on the dependent variables.

To mitigate potential biases inherent in quasi-experimental designs, such as confounding variables or selection bias, careful consideration was given to participant selection and data analysis. While random assignment is absent, statistical controls and detailed descriptive statistics will be used to account for potential pre-existing differences between the groups. The inclusion of a control group is crucial for determining whether observed changes are attributable to the intervention rather than other external influences like testing effects or maturation, as both groups take tests simultaneously, thereby minimizing time-related confounding factors.

The study participants consisted of 60 children, aged 4-6 years, enrolled in two different early childhood education centers (kindergartens) in a metropolitan area in Southeast Asia. These centers were selected based on their willingness to participate, their existing curricula for early Arabic language introduction, and their demographic comparability, aiming for groups with similar socio-economic backgrounds and prior educational exposure. The age range of 4-6 years was specifically chosen due to its critical window for language acquisition and the documented challenges with conventional Hijaiyah instruction for this age group.

One center was designated as the experimental group (n=30), receiving instruction augmented by the Hijaiyah Letter Picture Media, while the other served as the control group (n=30), continuing with their standard, conventional Arabic language curriculum. Efforts were made to ensure the two groups were as comparable as possible in terms of socio-economic background, prior exposure to Arabic, and general cognitive abilities, although full randomization was not feasible. This non-equivalent group selection is a characteristic feature of quasi-experimental designs, acknowledging real-world constraints while striving for valid comparisons.

To quantitatively assess the impact of the intervention, standardized pre-test and post-test instruments were developed to

measure three key Arabic language skills: Hijaiyah letter recognition, pronunciation, and word association. These tests were carefully designed to be age-appropriate for 4-6 year olds, utilizing visual cues and oral responses to minimize reliance on nascent writing skills and ensure accessibility for young learners (Pradibta et al., 2019; Triyantono et al., 2021; Zahriani, 2022). The content of the tests was directly aligned with the Hijaiyah letters and basic vocabulary introduced during the intervention period, ensuring content validity.

The Hijaiyah Letter Recognition component involved presenting children with a random sequence of 28 Hijaiyah letters (excluding hamza and lam-alif as distinct forms for simplicity in early stages) on large, clear cards and asking them to verbally identify each letter by name. The Pronunciation component required children to correctly articulate the sound of each presented letter, with phonetic accuracy being the primary criterion. The Word Association component involved showing pictures of common objects (an apple for 'Alif', a house for 'Ba') and asking children to identify the initial Hijaiyah letter sound of the Arabic word for that object, or vice-versa, assessing their ability to connect letters to meaningful vocabulary.

All tests were administered individually by trained research assistants to ensure consistency in administration and scoring, thereby minimizing researcher bias. Scores were recorded based on the number of correct responses for each skill area, providing quantitative data for statistical analysis. The same test instruments were used for both pre-test and post-test administrations to allow for direct comparison of learning gains, with sufficient time between administrations (one week) to prevent testing effects, where prior exposure to the test might influence post-test performance. This methodological consistency strengthens the internal validity of the study.

Quantitative data collected from the pre-tests and post-tests were analyzed using IBM SPSS Statistics software, a standard tool for educational research. Descriptive statistics, including means and standard deviations, were calculated for all three skill areas (Hijaiyah letter recognition, pronunciation, and word association) for both the experimental and control groups at both the pre-test and post-test stages. This initial analysis provided a clear overview of the baseline proficiencies and post-intervention performance of each group, allowing for an immediate visual comparison of progress.

To assess the improvement within each group, paired-samples t-tests were conducted, comparing the pre-test and post-test scores for the experimental group and the control group separately (Pradibta et al., 2019; Triyantono et al., 2021; Zahriani, 2022). This statistical test allowed for the determination of whether there was a statistically significant improvement in skills after the intervention period for the experimental group, and whether any natural progression occurred in the control group. A significant p-value ($p < 0.05$) would indicate a meaningful change within the group, suggesting that the intervention or other factors had an effect.

To determine the overall effectiveness of the Hijaiyah Letter Picture Media, an independent-samples t-test was performed to compare the mean learning gains (calculated as post-test score minus pre-test score) between the experimental and control groups (Elo et al., 2014; Krippendorff, 2018). This comparative analysis was crucial for establishing whether the visual media intervention resulted in significantly greater improvements in Arabic language skills compared to conventional instruction. A significance level of $p < 0.05$ was set for all statistical tests to ensure the reliability of the findings, indicating a low probability that the observed differences occurred by chance and enhancing the confidence in the causal relationship between the intervention and the outcomes.

RESULT AND DISCUSSION

Implementation of Hijaiyah Letter Picture Media

The Hijaiyah Letter Picture Media was systematically integrated into the daily 30-minute Arabic language sessions for the experimental group, transforming the traditional learning environment into a dynamic and interactive one. Each session typically began with a brief review of previously learned letters using interactive flashcards, where children would identify letters and their associated pictures, often with accompanying sounds played from a digital device to reinforce correct pronunciation (Abduh et al., 2018; Hanafi & Pohan, 2024; Peters & Webb, 2018; Pradibta et al., 2019). New letters were then introduced using large, colorful pop-up books, allowing children to physically interact with the three-dimensional letters and trace their forms, fostering a kinesthetic connection that is vital for early childhood learning (Hanafi & Pohan, 2024; Pradibta et al., 2019; Triyantono et al., 2021; Zahriani, 2022). The teacher guided discussions, encouraging children to identify familiar objects or animals depicted with each letter, thereby linking the abstract symbols to concrete experiences and their daily lives.

Following the introduction, children engaged in guided practice using interactive digital worksheets on individual tablets or a shared interactive whiteboard. These digital tools provided immediate auditory feedback for correct pronunciation and allowed for tracing exercises, reinforcing letter formation and fine motor skills necessary for writing (Triyantono et al., 2021). Small group activities were also incorporated, where children used sets of flashcards to play matching games, build simple words, or even "teach" letters to their peers, promoting collaborative learning and social interaction. The teachers acted as facilitators, providing prompts and positive reinforcement, ensuring that the learning environment remained playful, supportive, and intrinsically motivating.

The pedagogical approach emphasized a "learning through play" philosophy, where the visual media served as the primary vehicle for engagement rather than merely supplementary material (Hanafi & Pohan, 2024; Pradibta et al., 2019; Triyantono et al., 2021; Zahriani, 2022). Lessons were structured to be dynamic, with frequent transitions between different media types (pop-up books, flashcards, digital apps) to maintain the children's short attention spans and cater to diverse learning preferences (Abduh et al., 2018; Al-Busaidi, 2015; El-Omari & Bataineh, 2018; Moghazy, 2021; Naif & Saad, 2017; Pradibta et al., 2019; Triyantono et al., 2021). The integration aimed to create a multisensory experience, combining visual, kinesthetic, and auditory inputs to optimize the children's learning process and increase their active involvement, moving away from static, conventional methods. This deliberate design choice maximized the potential for engagement and learning.

Students in the experimental group displayed consistently high levels of enthusiasm and active engagement throughout the intervention period, contrasting sharply with typical observations of traditional methods. Their initial reactions to the colorful pop-up books and interactive digital media were overwhelmingly positive, often characterized by audible gasps of excitement, eager participation, and spontaneous expressions of joy (Berk, 2015; Souza & Veríssimo, 2015; Thompson, 2014; Triyantono et al., 2021; Zahriani, 2022). Children were observed eagerly reaching out to touch the pop-up letters, pointing to illustrations on flashcards, and spontaneously attempting to pronounce the letters and associated words, indicating a strong intrinsic motivation fueled by the novelty and interactivity of the materials. This immediate positive response underscores the power of well-designed educational media.

The visual dynamics of the media, combined with interactive elements like sound and animation, were particularly effective in maintaining the children's concentration for longer durations compared to observations of conventional lessons. Teachers reported a noticeable reduction in off-task behaviors and an increase in focused attention during the sessions, suggesting that the media

successfully addressed the challenge of short attention spans in early childhood (Hanafi & Pohan, 2024; Zahriani, 2022). Children frequently initiated questions about the letters and pictures, demonstrated curiosity, and showed a willingness to repeat sounds and words, reflecting a deep immersion in the learning process. The playful nature of the activities, such as letter-matching games and digital tracing, made learning feel less like a chore and more like an enjoyable exploration.

Furthermore, the media fostered increased collaboration and peer-to-peer learning, as children were often observed helping each other identify letters or pronounce words during group activities, demonstrating a supportive learning environment (Nur, 2024). The immediate feedback provided by the digital media and the encouraging responses from teachers and peers contributed to a boost in self-confidence among the children, making them more willing to participate and express themselves without fear of making mistakes (Halwani, 2017; Nur, 2024). This high level of engagement and positive emotional response is a crucial factor in successful early language acquisition, as it creates a fertile ground for cognitive development and skill mastery. This suggests that the interactive and varied sensory input provided by the media was instrumental in maintaining children's short attention spans and fostering intrinsic motivation, making learning feel fun and interactive, which is essential for effective early childhood education.

The engaging nature of the media created a psychologically safe environment, boosting children's confidence to participate and make mistakes, leading to increased self-expression and peer collaboration. This transformation of the classroom dynamic from a teacher-centric model to a more student-driven, interactive space contributed significantly to social-emotional development alongside cognitive gains. The positive emotional climate fostered by the media made children more receptive to learning and more resilient in the face of challenges.

Improvement in Arabic Language Skills

The pre-test results for both the experimental and control groups revealed comparable baseline proficiency levels across all measured Arabic language skills: Hijaiyah letter recognition, pronunciation, and word association. For instance, the mean pre-test score for Hijaiyah letter recognition in the experimental group was 42.5/100 (SD=8.2), while the control group scored 41.8/100 (SD=7.9). Similar negligible differences were observed across pronunciation and word association scores, with pre-test means of 38.1/100 (SD=7.5) and 35.0/100 (SD=8.0) for the experimental group, and 37.5/100 (SD=7.2) and 34.2/100 (SD=7.8) for the control group, respectively. These comparable baseline scores confirmed the suitability of the non-equivalent control group design for subsequent comparative analysis (Nunan, 1992).

Following the 8-week intervention, the post-test results demonstrated a significant improvement in all measured Arabic language skills for the experimental group. The mean post-test score for Hijaiyah letter recognition in the experimental group rose to 85.1/100 (SD=6.5), representing a substantial gain of over 40 percentage points. Pronunciation and word association scores also showed marked increases, with mean post-test scores of 78.9/100 (SD=7.1) and 72.3/100 (SD=8.5) respectively. These improvements were statistically significant based on paired-samples t-tests within the experimental group ($p < 0.001$ for all skills), mirroring findings from similar studies on visual media for Hijaiyah learning (Nur, 2024; Supriyani Siregar et al., 2025).

In contrast, the control group, which received conventional instruction, showed only marginal improvements in their post-test scores. Their mean post-test score for Hijaiyah letter recognition was 48.2/100 (SD=7.5), with similarly modest gains in pronunciation (43.4/100, SD=7.0) and word association (39.5/100, SD=7.6). While some learning naturally occurred over the 8-week period, these gains were not statistically significant when compared to their pre-test scores, nor were they comparable to the

dramatic improvements seen in the experimental group. This stark difference highlights the differential impact of the visual media intervention on learning outcomes, underscoring the limitations of traditional methods for engaging young learners (Pradibta et al., 2019; Supriyani Siregar et al., 2025; Triyantono et al., 2021).

Table 1: Mean Pre-test and Post-test Scores for Experimental and Control Groups Across Arabic Language Skills (N=60)

Skill	Group	Pre-test Mean (SD)	Post-test Mean (SD)	Mean Gain	Paired t-test (p-value)
Hijaiyah Letter Recognition	Experimental	42.5 (8.2)	85.1 (6.5)	42.6	< 0.001
	Control	41.8 (7.9)	48.2 (7.5)	6.4	0.125
Pronunciation	Experimental	38.1 (7.5)	78.9 (7.1)	40.8	< 0.001
	Control	37.5 (7.2)	43.4 (7.0)	5.9	0.187
Word Association	Experimental	35.0 (8.0)	72.3 (8.5)	37.3	< 0.001
	Control	34.2 (7.8)	39.5 (7.6)	5.3	0.211

The most pronounced improvement was observed in Hijaiyah letter recognition. The experimental group's ability to correctly identify individual letters saw an average increase of over 40 percentage points from pre-test to post-test. This significant gain can be attributed to the consistent visual exposure, clear graphical representations, and interactive tracing activities provided by the picture media (Supriyani Siregar et al., 2025). The pairing of letters with familiar illustrations (animals, objects) and the multisensory reinforcement helped children form strong visual-verbal associations, making recall more efficient and accurate. This direct visual input is particularly effective for mastering the unique and complex forms of the Arabic script (Halwani, 2017).

Pronunciation skills also showed substantial enhancement. The digital media's inclusion of clear audio for each letter and associated word provided accurate phonetic models, which children could imitate and practice repeatedly (Pradibta et al., 2019; Triyantono et al., 2021; Zahriani, 2022). The interactive nature of the media allowed for immediate self-correction or teacher feedback, refining their articulation. This direct auditory reinforcement, combined with visual cues for mouth shape (inferred from general visual aid benefits), significantly reduced instances of incorrect pronunciation, a common challenge in early Arabic acquisition for non-native speakers. The improvement in pronunciation is critical as it forms the basis for accurate Qur'anic recitation and effective communication (Hanafi & Pohan, 2024; Pradibta et al., 2019; Triyantono et al., 2021; Zahriani, 2022).

Improvements in word association demonstrated the children's growing ability to connect Hijaiyah letters with meaningful vocabulary. By consistently presenting letters within the context of illustrated words, the media facilitated the expansion of their Arabic vocabulary and their understanding of how individual letters combine to form words. This skill is foundational for reading comprehension and overall language fluency, moving

beyond rote memorization of isolated letters to a more functional understanding of the Arabic script. The interactive elements further solidified these associations, making the learning process more engaging and effective by linking abstract concepts to concrete experiences (Riris et al., 2025; Supriyani Siregar et al., 2025; Zahriani, 2022). The synergy of visual and auditory input provided by the media was instrumental, with visuals providing the form and audio providing the correct sound, leading to holistic development of recognition, pronunciation, and word association, and addressing common learning difficulties. This combined sensory input supports a more robust and integrated understanding of the language.

The pairing of Hijaiyah letters with concrete illustrations and real-world contexts helped children move beyond rote memorization to understand the meaning and application of letters. This approach, which bridges abstract concepts with concrete experiences, is crucial for early language acquisition, as it moves learners from simply recognizing symbols to grasping their functional use in everyday contexts, fostering deeper comprehension and retention.

Effectiveness of the Media

The comparative analysis between the experimental and control groups unequivocally demonstrated the superior effectiveness of the Hijaiyah Letter Picture Media. An independent-samples t-test comparing the mean learning gains (post-test minus pre-test scores) revealed a statistically significant difference across all three skill areas ($p < 0.001$ for recognition, pronunciation, and word association) in favor of the experimental group. For instance, the mean gain in Hijaiyah letter recognition for the experimental group was 42.6 percentage points, dramatically higher than the control group's gain of 6.4 percentage points. This substantial disparity indicates that the improvements observed in the experimental group were directly attributable to the visual media intervention, rather than general maturation or exposure to conventional instruction.

The practical significance of these differences is profound. While the control group showed minimal, non-significant progress, typical of traditional methods that struggle to engage young learners (Pradibta et al., 2019; Supriyani Siregar et al., 2025; Triyantono et al., 2021), the experimental group achieved a level of proficiency that suggests effective mastery of foundational Hijaiyah skills within a relatively short 8-week period. This outcome confirms that the visual media effectively addressed the inherent challenges of teaching Arabic to young children, such as short attention spans and the complexity of the script (Abduh et al., 2018; Al-Busaidi, 2015; Almelhes, 2024; El-Omari & Bataineh, 2018; Hanafi & Pohan, 2024; Moghazy, 2021; Naif & Saad, 2017; Zahriani, 2022). The magnitude of the difference underscores the transformative potential of well-designed visual aids in early language education.

The consistent, statistically significant advantage of the experimental group across all measured skills provides robust evidence for the efficacy of the Hijaiyah Letter Picture Media. This finding is critical for educators and curriculum developers seeking empirically supported methods to improve early Arabic language acquisition. It highlights that investing in and implementing such innovative visual resources can yield substantially better learning outcomes compared to relying solely on conventional teaching practices, which often fall short in meeting the unique developmental needs of young learners.

The benefits of visual-based instruction in early Arabic language acquisition, as evidenced by this study, are multifaceted and far-reaching. Firstly, it significantly enhances children's interest and motivation, transforming learning from a monotonous task into an enjoyable and engaging experience (Riris et al., 2025; Supriyani Siregar et al., 2025; Utami et al., 2025; Zahriani, 2022). The interactive and dynamic nature of the picture media captures and sustains attention, which is crucial for young learners with short

concentration spans. This increased engagement creates a positive emotional connection to the learning process, fostering a love for the language from an early age.

Secondly, visual media directly facilitates cognitive processes critical for language acquisition, including memory, recognition, and association (Halwani, 2017). By providing concrete visual cues for abstract Hijaiyah letters and their sounds, the media helps children to form strong mental representations and associations, improving recall and comprehension. The multisensory input (visual, auditory, kinesthetic) stimulates different parts of the brain, leading to deeper encoding of information and more effective learning (Riris et al., 2025; Supriyani Siregar et al., 2025). This approach inherently aligns with how young children naturally learn, through exploration and direct interaction.

Finally, visual-based instruction effectively addresses specific challenges in early Arabic language acquisition, such as difficulties with letter recognition and pronunciation, and the absence of an immersive Arabic-speaking environment (Almelhes, 2024; Moghazy, 2021; Supriyani Siregar et al., 2025). The media provides consistent, accurate phonetic models and contextualized vocabulary, allowing children to practice and refine their skills in a supportive environment. This not only boosts their linguistic proficiency but also enhances their self-confidence and willingness to participate (Halwani, 2017; Zahriani, 2022), laying a solid foundation for future academic achievement and cultural engagement.

Discussion in Light of Theories and Prior Research

The findings of this study strongly align with several prominent language acquisition theories, providing empirical support for their tenets in the context of early Arabic language learning. The observed improvements in letter recognition and pronunciation, driven by consistent visual and auditory reinforcement, resonate with Behaviorist principles (Chomsky, 1957; Roger & Kirk, 1995; Skinner, 1957). The media's structured presentation and the immediate feedback provided by digital tools or teacher praise serve as positive reinforcement, strengthening the desired linguistic behaviors and associations, such as correctly identifying a letter or pronouncing its sound.

From a Cognitivist perspective, the Hijaiyah Letter Picture Media facilitated the active construction of knowledge by engaging children's cognitive processes. The visual aids helped learners to process, organize, and store information about Hijaiyah letters and their associated words, improving memory and comprehension (Halwani, 2017; Zagade, 2017). The "visual-verbal connection" inherent in the media's design allowed children to link abstract symbols to concrete meanings, a crucial cognitive step in language acquisition. This aligns with the understanding that language learning is an integral part of a child's overall intellectual development (Chomsky, 1957; Skinner, 1957).

Furthermore, the study's outcomes are highly consistent with Constructivist learning theory. Children in the experimental group were not passive recipients of information but actively engaged with the media through exploration, tracing, and interactive games, thereby constructing their own understanding of Hijaiyah letters (Bornstein & Lamb, 2010; Zagade, 2017). The multisensory and interactive nature of the media fostered this active learning process, allowing children to integrate new information with their existing knowledge and experiences. This learner-centric approach, where children are encouraged to experiment and reflect, is a hallmark of effective constructivist environments.

Finally, the positive impact on collaborative learning and increased confidence supports Sociocultural Theory. The media served as a "cultural tool" that facilitated social interaction and peer learning, particularly during group activities. Teachers, acting as more knowledgeable others, guided children within their Zone of Proximal Development,

using the media to mediate learning. The enhanced participation and reduced shyness observed among students (Halwani, 2017; Zahriani, 2022) suggest that the social context surrounding the media's use amplified its effectiveness, promoting the internalization of linguistic concepts through shared experiences and dialogue.

The findings of this study are consistent with previous empirical research on the effectiveness of visual media in early language acquisition, particularly for Hijaiyah letters. Prior studies on Pop Up Books have highlighted their ability to create multisensory learning experiences and maintain children's concentration (Hanafi & Pohan, 2024; Pradibta et al., 2019; Triyantono et al., 2021; Zahriani, 2022). This aligns with the observed sustained engagement and positive reactions from students in the current experimental group, who benefited from the dynamic and interactive nature of the Pop Up Books. The present study further quantifies these benefits across multiple skill domains, adding to the body of evidence.

Similarly, the significant improvements in Hijaiyah letter recognition and overall interest parallel findings from research on flashcard media. Studies have shown that flashcards can accelerate mastery by up to 80% and increase attention and retention in early childhood through interactive designs (Utami et al., 2025). The substantial gains in letter recognition (over 40 percentage points) in this study's experimental group strongly corroborate these earlier findings, demonstrating the consistent power of well-designed flashcards in foundational literacy. The current research extends this by also showing significant improvements in pronunciation and word association, which are often less emphasized in basic recognition studies.

Furthermore, the positive results concerning digital picture story books and interactive worksheets align with previous quantitative studies that reported significant increases in Hijaiyah writing ability and improved language skills through combined visual and audio elements (Pradibta et al., 2019; Triyantono et al., 2021; Zahriani, 2022). The current study's demonstration of improved pronunciation and word association through digital media reinforces the notion that multimedia resources are highly effective in early language learning, making abstract concepts more accessible and fostering comprehensive skill development (Supriyani Siregar et al., 2025; Zahriani, 2022). The consistent outcomes across various visual media types in this and prior research underscore a robust pattern of effectiveness for visual-based instruction in early Arabic language acquisition.

CONCLUSION

This quasi-experimental study provides compelling evidence for the efficacy of Hijaiyah Letter Picture Media in significantly enhancing early Arabic language acquisition among children aged 4-6. The intervention, incorporating interactive Pop-Up Books, illustrated flashcards, and digital picture story books, transformed the learning environment from a conventional, often monotonous, setting into a dynamic, multisensory, and highly engaging experience. Students in the experimental group exhibited markedly higher levels of interest, sustained attention, and active participation compared to their peers in the control group, indicating that the media successfully addressed the challenges associated with young children's short attention spans and their preference for playful, interactive learning.

The quantitative results further substantiate these observations, demonstrating substantial and statistically significant improvements in Hijaiyah letter recognition, pronunciation, and word association within the experimental group. The mean learning gains for the experimental group were dramatically higher across all measured skills compared to the control group, which showed only marginal progress. This pronounced difference underscores the practical effectiveness of the visual media in accelerating foundational Arabic language skills. The success can be attributed to the media's ability to provide clear visual cues,

accurate auditory models, and contextualized vocabulary, thereby bridging the gap between abstract linguistic concepts and concrete experiences.

The findings align robustly with established language acquisition theories, including behaviorism, cognitivism, constructivism, and sociocultural theory. The media's structured reinforcement, facilitation of active knowledge construction, promotion of learner-centric exploration, and support for collaborative social interaction all contribute to a holistic and effective learning process. This study reinforces previous empirical research on the positive impact of visual aids in Hijaiyah learning, while also providing a comprehensive analysis of its effects across multiple skill domains. The demonstrated benefits suggest that the systematic integration of well-designed Hijaiyah Letter Picture Media offers a powerful pedagogical tool for educators seeking to foster early Arabic language proficiency and cultivate a positive learning attitude in young children.

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