

Development of Pobara (Joyful Reading Tree) Media to Improve Letter Recognition Skills in Early Childhood: Integrating Islamic Pedagogical Values

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Abstract

Letter recognition constitutes one of the most fundamental pillars of early literacy development in early childhood, as it underlies phonological awareness and later reading competence. In practice, however, letter-learning activities in many early childhood classrooms are still delivered through conventional, text-based, and repetitive methods that fail to sustain children's engagement and motivation. Within Islamic educational thought, literacy acquisition is also inseparable from the theological command to read (iqra') articulated in the first revelation of the Qur'an, positioning the pursuit of knowledge as an act of worship rather than a merely secular skill. Motivated by these considerations, this study aimed to develop POBARA (Joyful Reading Tree), a three-dimensional instructional medium designed to improve letter recognition skills among young children through developmentally appropriate, play-based, and multisensory activities. The study employed a Research and Development (R&D) approach adapted from the Borg and Gall model, encompassing five stages: research and information gathering, planning, preliminary product development, expert validation, and product revision. The resulting prototype, a tree-shaped medium equipped with detachable illustrated alphabet cards, was validated by two instructional media experts and two early childhood education experts using structured questionnaires analyzed through Aiken's V formula. Results showed that all validation indicators exceeded the minimum acceptable coefficient of 0.75, confirming that POBARA is structurally durable and pedagogically appropriate for classroom use.

Keywords: early childhood education, instructional media, letter recognition, POBARA, Research and Development.

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INTRODUCTION

Early childhood, generally defined as the period from birth to six years of age, represents a critical stage of human development characterized by rapid physical, cognitive, language, social-emotional, and motor growth. During this period, the human brain develops at its fastest rate across the entire lifespan, forming the neural architecture that becomes the foundation for subsequent learning, behavior, and long-term wellbeing (National Academies of Sciences, 2024). Experiences and educational stimulation provided during this period have long-term implications for children's readiness to learn and their overall developmental outcomes (National Academies of Sciences, 2024; National Association for the Education of Young Children, 2020). Early childhood education therefore plays a crucial role in providing developmentally appropriate learning experiences that support children's holistic development and prepare them for formal schooling (National Association for the Education of Young Children, 2020; OECD, 2021). Beyond its psychological and pedagogical significance, the responsibility to nurture and educate children from their earliest years is also deeply embedded within Islamic teaching, which regards children as an amanah (a trust) from Allah SWT that must be guided toward beneficial knowledge and righteous character from the very beginning of their lives.

Among the various developmental domains, language and early literacy have received considerable attention because they establish the foundation for future academic achievement. One of the most essential components of emergent literacy is letter recognition, which involves not only identifying the visual forms of letters but also understanding the relationship between letters and their corresponding sounds. This knowledge enables children to develop phonological awareness and serves as a prerequisite for reading and writing acquisition (Ehri, 2020; National Academies of Sciences, 2024; Taylor & Boyer, 2020). Alphabet knowledge acquired during the preschool years has repeatedly been identified as one of the strongest predictors of later reading achievement, since it allows children to decode printed words more efficiently and to build a stable foundation for subsequent phonics instruction. Children who demonstrate strong letter knowledge during preschool generally exhibit better reading achievement during the early years of primary education ((Christianti et al., 2023; Ehri, 2020). Given this predictive relationship, the quality of letter-learning experiences provided during early childhood becomes a matter of significant pedagogical concern, particularly regarding the extent to which such experiences are engaging, multisensory, and developmentally appropriate for young learners.

Literacy and Letter Recognition within the Islamic Educational Framework

Within Islamic educational thought, the acquisition of literacy holds a position that extends beyond cognitive or academic achievement alone. The very first revelation received by the Prophet Muhammad, recorded in QS. Al-'Alaq (96): 1–5, opens with the divine command “Iqra” (read), instructing humankind to read in the name of their Lord who created, taught by the pen, and taught what was previously unknown. This foundational command positions reading, and by extension the recognition of letters as the smallest unit of written language, as an act of worship and a gateway to knowledge, rather than a purely secular or

utilitarian skill. From this theological perspective, efforts to introduce children to letters and to cultivate their reading readiness may be understood as an early realization of the Qur'anic mandate to seek and transmit knowledge, and therefore carry spiritual as well as developmental significance.

The importance of language and the diversity of human articulation is further affirmed in QS. Ar-Rum (30): 22, which describes the differences in languages and colors among human beings as being among the signs (ayat) of Allah's greatness for those who possess knowledge. This verse suggests that language, including the letters and sounds that compose it, is not a neutral or incidental human capacity, but a manifestation of divine design worthy of contemplation. When situated within early childhood education, this understanding invites educators to treat letter recognition activities not merely as a cognitive exercise, but as an opportunity to nurture children's awareness of the linguistic diversity and communicative capacity granted to them by their Creator.

Integrating these theological foundations with contemporary developmental theory, the present study positions the development of literacy instructional media as an endeavor that simultaneously honors empirically established principles of early childhood pedagogy, such as those articulated by National Association for the Education of Young Children (2020) and the OECD (2021), and the Islamic imperative to facilitate children's engagement with reading from their earliest years. This dual orientation is considered particularly relevant given that the present study was conducted within the scope of Islamic early childhood education, where instructional innovations are expected to reflect both sound developmental pedagogy and Islamic values, rather than relying exclusively on secular Western frameworks.

The primary objective of this study is to design, develop, and evaluate a three-dimensional instructional medium called POBARA (Joyful Reading Tree) to improve letter recognition skills among young children, while situating this development effort within the Islamic pedagogical framework outlined above. Although the significance of early literacy has been extensively documented, many early childhood classrooms, including those operating within Islamic educational institutions, continue to experience difficulties in presenting abstract alphabetic concepts in ways that are meaningful, engaging, and value-laden for young learners (Weisberg et al., 2016). Since children naturally acquire knowledge through play-based and hands-on experiences, conventional instructional approaches that rely heavily on text or repetitive memorization often fail to sustain children's motivation and curiosity (Hirsh-Pasek et al., 2009; National Association for the Education of Young Children, 2020). Insufficient letter recognition during early childhood has been consistently associated with later reading difficulties, reduced academic achievement, and lower self-confidence in learning (Ehri, 2020; Taylor & Boyer, 2020). Consequently, instructional media that transform abstract alphabetic symbols into concrete, interactive, and multisensory learning experiences, while remaining consistent with the values instilled in Islamic early childhood settings, are needed to facilitate early literacy development (National Association for the Education of Young Children, 2020).

Despite the growing body of literature on early literacy instruction, a significant research gap remains regarding the integration of three-dimensional manipulative media with multisensory learning strategies, particularly within Islamic early childhood education contexts where discussions of instructional media rarely engage explicitly with theological grounding. Previous studies have predominantly investigated two-dimensional instructional media, including alphabet flashcards, alphabet boards, and the conventional Pohon Pintar (Smart Tree) learning medium, which mainly require children to recognize or repeat letters identified by the teacher (Astutik, 2020). Such instructional media provide relatively limited opportunities for children to engage in active physical manipulation while simultaneously stimulating visual, auditory, and kinesthetic learning modalities (Cankaya et al., 2023). Moreover, most existing studies on the Pohon Pintar concept have been conducted within general early childhood settings without explicit reference to Islamic pedagogical values, leaving open the question of how such media might be redesigned to reflect the theological significance of reading within an Islamic worldview. To address these limitations, the present study introduces POBARA (Joyful Reading Tree), a modified three-dimensional literacy medium that allows children to attach, detach, pick, and arrange illustrated letter cards through interactive play-based activities, developed with explicit reference to the Qur'anic foundations of reading discussed above. This innovation is expected to bridge the gap between passive visual observation and active multisensory learning, while providing early childhood educators, particularly those working within Islamic institutions, with a practical, engaging, and value-laden instructional medium to support children's letter recognition development (National Association for the Education of Young Children, 2020; OECD, 2021).

The novelty of this study lies in the development of a three-dimensional instructional medium that combines visual, auditory, and kinesthetic learning experiences through interactive play-based activities, while being explicitly grounded in Islamic pedagogical values concerning the significance of reading and language. Unlike previous alphabet learning media that mainly emphasize visual recognition and remain theologically neutral, POBARA allows children to manipulate alphabet cards directly, thereby promoting active participation and multisensory learning, while its accompanying activities are framed by educators to reflect the Qur'anic command to read and the appreciation of linguistic diversity as signs of Allah's greatness. This innovation is expected to provide a more engaging and spiritually meaningful instructional alternative for improving early childhood letter recognition skills within Islamic early childhood education settings.

METHOD

This study employed a Research and Development (R&D) design based on the Borg and Gall development model, which is widely used to develop and validate educational products through systematic stages of planning, development, evaluation, and revision (Gall et al., 2007). The R&D approach was selected because it allows researchers not only to describe an educational

problem, but also to produce, test, and refine a concrete instructional product that directly addresses that problem (Creswell & Creswell, 2022). Considering the scope of this study, the Borg and Gall development model was adapted into five stages: (1) research and information gathering, (2) planning, (3) preliminary product development. The adaptation was intended to focus on the development and expert validation of the POBARA learning media prior to field testing. The adaptation of Borg and Gall's model has been commonly applied in educational development studies where the primary objective is to produce and validate an initial prototype before conducting large-scale field testing (Rahmatin et al., 2025).

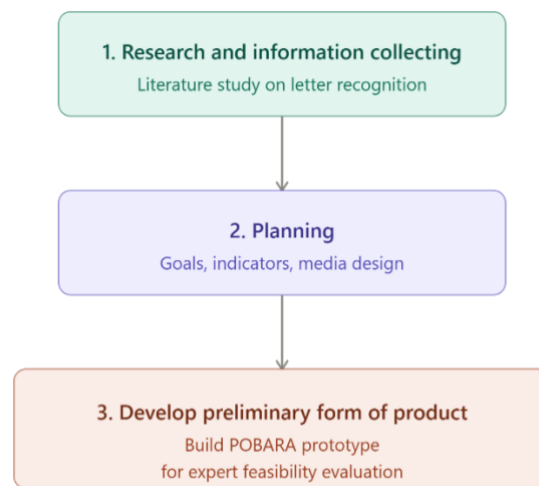


Figure 1. Development process of POBARA learning media

During the research and information gathering stage, a literature review was conducted to identify problems related to early childhood letter recognition and to examine previous instructional media used in early literacy education. The literature review served as the basis for identifying research gaps and determining the design requirements of the learning media (Creswell & Creswell, 2022). The findings indicated that existing instructional media were predominantly two-dimensional, provided limited opportunities for multisensory interaction, and rarely incorporated explicit religious or theological framing despite being intended for use in Islamic early childhood settings. These findings became the foundation for developing the POBARA (Joyful Reading Tree) learning media.

In the planning stage, the instructional objectives, learning indicators, media specifications, learning procedures, and required materials were determined. The product was designed to improve children's ability to recognize letter shapes, identify letter names, associate letters with their corresponding sounds, and construct simple words through play-based learning activities. In line with the Islamic pedagogical framework discussed in the Introduction, the instructional objectives were also formulated to cultivate children's enjoyment of reading in a manner consistent with the spirit of *iqra'*, encouraging teachers to frame letter-recognition activities as a joyful and meaningful engagement with knowledge rather than a mechanical drill. The planning process emphasized alignment

between instructional objectives, learner characteristics, and media design to ensure that the developed product addressed the identified educational needs.

The preliminary product development stage focused on constructing the initial prototype of POBARA. The learning media consists of a three-dimensional tree structure equipped with detachable illustrated alphabet cards. The prototype was developed using cardboard, flannel fabric, colored paper, decorative materials, and hook-and-loop fasteners. Learning activities integrated into the media include letter recognition through picture cues, matching letters with corresponding images, attaching and removing letter cards, interactive letter-guessing games, and constructing simple words.

Because POBARA is a static three-dimensional object, its multisensory design required explicit operationalization to ensure that each sensory modality, particularly the auditory dimension, is genuinely stimulated rather than merely assumed. The visual modality is facilitated through colorful illustrated alphabet cards and letter-picture pairings that are designed to attract children's attention and support letter-shape recognition. The kinesthetic modality is facilitated through the physical act of attaching, detaching, picking, and arranging the alphabet cards on the tree structure, which engages children's fine motor coordination. The auditory modality, in contrast, is not stimulated by the medium as a physical object per se, but is deliberately embedded within the two interactive learning activities that accompany the medium's use. First, teacher-guided phonemic articulation requires the teacher to pronounce the sound of each letter aloud as children select, attach, or point to the corresponding card, thereby linking the visual symbol to its spoken sound. Second, the interactive letter-guessing game is structured as a dialogic activity in which children take turns verbally naming, guessing, or describing letters and the pictures associated with them to their peers, generating verbal and auditory interaction that is intrinsic to the activity rather than incidental. This operational clarification addresses the methodological requirement that a multisensory claim be supported by a concrete description of how each sensory channel is activated during instruction, rather than being inferred from the physical properties of the medium alone.

The prototype was evaluated through expert validation involving four validators, consisting of two media experts and two early childhood education experts. Media experts evaluated the visual design, functionality, usability, and practicality of the product, whereas material experts assessed the appropriateness of the instructional content, learning activities, and their alignment with children's developmental characteristics. Data were collected using structured validation questionnaires consisting of ten items for each validation aspect and measured using a five-point Likert scale ranging from 1 (very poor) to 5 (excellent).

The analysis of the validation data was conducted using Aiken's V formula to measure the content validity coefficient of the evaluation instruments. Aiken's V was selected over alternative content-validity indices, such as the Content Validity Ratio (CVR) or Content Validity Index (CVI), because it explicitly accounts for both the number of raters and the number of rating categories, making it particularly suitable for small validator panels typically involved in the expert-validation stage of R&D studies (Aiken, 1985; Nurjanah et al., 2023). Given that

the evaluation involved four validators ($n = 4$) utilizing a 5-point Likert rating scale ($c = 5$), the significance threshold for the validity coefficient was determined based on Aiken's (1985) critical value table at the 5% significance level ($\alpha = 0.05$). Under these statistical parameters, an item or evaluation aspect is considered valid and acceptable if it achieves a minimum Aiken's V coefficient of 0.75. The formula used to calculate the coefficient is expressed as follows:

$$V = \frac{\sum S}{n(C - 1)}$$

where $s = r - l$, with r representing the score assigned by a validator and l representing the lowest possible score on the rating scale ($l = 1$). Items obtaining a coefficient below 0.75 ($V < 0.75$) were categorized as invalid and required further revision before the learning media could be deployed.

Based on the statistical analysis of the expert validation results, the initial prototype of the POBARA learning media exhibited variations in validity coefficients. During the preliminary evaluation, two items fell below the established critical threshold ($V < 0.75$), specifically the item assessing the practicality of storage and maintenance ($V = 0.50$) and the item evaluating media durability ($V = 0.63$). These findings aligned with the qualitative feedback from the validators, who noted that the initial cardboard-based material was prone to structural wear.

To address these deficiencies, systematic product revisions were undertaken. The structural framework was reinforced using high-density industrial board, a protective outer lamination layer was applied to secure the components, and an integrated letter card storage compartment was added to the back of the media tree structure. Following these material improvements, the final evaluation confirmed that all assessment items successfully surpassed the minimum validity threshold ($V \geq 0.75$), with coefficients ranging from 0.75 to 1.00. Consequently, the POBARA learning media is empirically declared content-valid and methodologically viable for implementation.

Regarding the material validation, the statistical processing yielded highly consistent results, with Aiken's V coefficients for all instructional indicators ranging from 0.88 to 1.00. Since all individual scores successfully exceeded the required statistical critical value ($V \geq 0.75$), the educational content, literacy tasks, and pedagogical approach embedded within the POBARA learning media are declared fully valid and highly suitable for early childhood letter recognition activities.

RESULTS

The development of POBARA (Joyful Reading Tree) was completed following the five stages of the adapted Borg and Gall model. The final prototype is a three-dimensional tree-shaped instructional medium designed to facilitate early letter recognition through multisensory learning activities. The medium incorporates illustrated alphabet cards that can be attached, detached, and rearranged by children during play-based learning activities.



Figure 2. Prototype of POBARA

The expert validation results demonstrated that the developed learning media fulfilled the established validity criteria. During the initial evaluation, the media validation indicators yielded Aiken's V coefficients ranging from 0.50 to 1.00, indicating that certain elements regarding durability and storage practicality fell below the required critical threshold ($V < 0.75$). However, following systematic structural and material enhancements based on the experts' feedback, a subsequent evaluation confirmed that all refined media and material validation indicators successfully exceeded the minimum acceptable statistical threshold of 0.75, reaching a final range of 0.75 to 1.00 for media aspects and 0.88 to 1.00 for instructional content. Consequently, the product was empirically considered valid and highly suitable for early childhood letter recognition learning.

The results of the media expert validation are presented in Table 1. Overall, the POBARA learning media obtained an average Aiken's V coefficient of 0.91, indicating that the product was categorized as very valid. Two aspects, namely material durability and storage practicality, obtained the lowest validity coefficient (0.75), suggesting the need for product refinement before implementation.

Table 1. Results of Media Expert Validation

No.	Assessment Aspect	Indicator	Aiken's V	Category
1	Media design	Attractive appearance	0.94	Very Valid
2	Colour	Colour combination	0.94	Very Valid
3	Size	Suitable for children	0.88	Very Valid
4	Letter clarity	Easy to read	1.00	Very Valid
5	Picture quality	Relevant illustrations	0.94	Very Valid
6	Material durability	Strong materials	0.75	Valid
7	Ease of use	Easy for teachers	0.94	Very Valid
8	Storage practicality	Easy to store	0.75	Valid
9	Attractiveness	Engages children	1.00	Very Valid
10	Safety	Safe for children	0.94	Very Valid
Average			0.91	Very Valid

The results indicate that all media assessment aspects exceeded the minimum validity criterion (Aiken's $V \geq 0.75$). Although the aspects of material durability and storage practicality initially obtained the lowest scores, revisions

based on expert recommendations improved the overall quality and feasibility of the product.

The instructional content of the POBARA learning media was subsequently evaluated by two early childhood education experts. The validation results are presented in Table 2.

Table 2. Results of Material Expert Validation

No.	Assessment Aspect	Indicator	Aiken's V	Category
1	Learning objectives	Appropriate objectives	1.00	Very Valid
2	Content	Developmentally appropriate	0.94	Very Valid
3	Letter recognition	Alphabet sequence	0.94	Very Valid
4	Illustrations	Support letter learning	1.00	Very Valid
5	Play-based learning	Interactive activities	0.94	Very Valid
6	Multisensory	Visual, auditory, kinesthetic	0.88	Very Valid
7	Instructions	Easy to follow	0.94	Very Valid
8	Language	Clear and simple	1.00	Very Valid
9	Learning motivation	Encourages participation	0.94	Very Valid
10	Early literacy	Supports literacy	1.00	Very Valid
	Average		0.96	Very Valid

The findings demonstrate that all instructional aspects satisfied the required validity criteria. The average Aiken's V coefficient of 0.96 indicates that the instructional content of the POBARA learning media is highly appropriate for supporting early childhood letter recognition.

Following the first round of expert validation, several revisions were made to improve the quality of the learning media. The revisions are summarized in Table 3.

Table 3. Product Revision Based on Expert Suggestions

No.	Expert Suggestion	Revision
1	Improve colour contrast	Adjusted colour combinations.
2	Strengthen media structure	Used thicker board and lamination.
3	Provide storage	Added storage compartment for letter cards.
4	Increase letter size	Enlarged alphabet cards.
5	Complete instructions	Added teacher user guide.

DISCUSSION

The findings of this study demonstrate that the POBARA (Joyful Reading Tree) learning media has the potential to support early childhood letter recognition by providing a learning experience that is interactive, play-based, and developmentally appropriate. Unlike conventional alphabet learning media, POBARA transforms abstract alphabet symbols into concrete learning objects that children can manipulate directly. This design is consistent with the characteristics of early childhood learning, in which children acquire knowledge more effectively through active exploration and meaningful play rather than through passive memorization (National Association for the Education of Young Children, 2020; Taylor & Boyer, 2020; Weisberg et al., 2016).

The three-dimensional design represents the primary innovation of the developed media. Previous studies on early childhood letter recognition have mainly utilized two-dimensional instructional media, such as alphabet flashcards, alphabet boards, and the Pohon Pintar learning media (Astutik, 2020). Although these instructional tools have been reported to improve children's letter recognition, they generally provide limited opportunities for children to interact physically with learning materials. In contrast, POBARA integrates detachable alphabet cards, picture cues, and interactive play activities that simultaneously stimulate visual, auditory, and kinesthetic learning, with the auditory pathway specifically operationalized through teacher-guided phonemic articulation and dialogic peer interaction during play, as described in the Method section. This multisensory approach enables children to construct letter knowledge through direct manipulation of learning objects, thereby making the learning process more engaging and meaningful (Ehri, 2020; National Academies of Sciences, 2024).

Durability, Storage, and Developmentally Appropriate Practice

The initial validity scores obtained for material durability ($V = 0.63$) and storage practicality ($V = 0.50$) warrant deeper theoretical interpretation rather than being treated merely as isolated technical shortcomings. Children between the ages of 0 and 6 years are characteristically exploratory, tending to grasp, pull, bend, and repeatedly manipulate learning materials as part of their natural process of sensory and motor discovery. Paper- and cardboard-based instructional media, while inexpensive and easy to produce, are structurally vulnerable to this exploratory behavior and tend to deteriorate rapidly under repeated handling, folding, or accidental force. Within the framework of Developmentally Appropriate Practice (DAP), instructional media are expected to be not only pedagogically aligned with children's developmental stage, but also physically safe and comfortable for children to manipulate independently, without posing risks of injury from torn edges, collapsing structures, or damaged components (National Association for the Education of Young Children, 2020). Viewed through this lens, the low initial validity scores for durability and storage reflect a genuine DAP concern rather than a purely aesthetic or logistical weakness: a medium that degrades quickly under normal exploratory use ceases to be safe, reliable, and comfortable for repeated independent manipulation by young children.

The decision to reinforce POBARA's structure using high-density industrial board, together with the addition of a protective lamination layer and an integrated storage compartment, therefore represents a structural response to a developmental requirement rather than a merely cosmetic revision. A more durable structure reduces the likelihood of sharp or damaged edges that could harm children during play, sustains the medium's visual and functional integrity across repeated sessions, and lowers the risk of small detachable components being lost, which is particularly important given that loose alphabet cards could otherwise pose choking hazards if inadequately stored. The addition of a dedicated storage compartment further supports classroom management practices consistent with DAP, since it enables teachers to maintain an organized, safe, and readily accessible learning environment. The subsequent

increase in the Aiken's V coefficients for both indicators, from 0.63 to within the 0.75–1.00 range for durability and from 0.50 to within the same range for storage, empirically confirms that these structural revisions successfully addressed the developmental safety and sustainability concerns identified by the validators.

Integration of Islamic Pedagogical Values

The expert validation results further indicate that the developed product fulfills both instructional and media design requirements. Positive evaluations from media experts suggest that the product possesses appropriate visual design, usability, and practicality for classroom implementation, whereas the material experts confirmed that the instructional content is aligned with children's developmental characteristics and supports early literacy objectives. These findings indicate that the development process successfully integrated pedagogical principles with instructional media design, producing a learning medium that is both educationally appropriate and practically applicable. Similar findings have been reported in previous studies showing that expert validation is an essential stage in ensuring the quality and feasibility of educational products before classroom implementation (Nurjanah et al., 2023; Rahmatin et al., 2025).

Beyond its pedagogical merits, POBARA's development process was deliberately situated within the Islamic educational framework introduced in the Introduction. The Qur'anic command to read, articulated through the word *iqra'* in QS. Al-'Alaq (96): 1–5, provides a theological rationale for treating letter recognition not as an isolated academic skill but as an early step toward a lifelong relationship with reading and knowledge-seeking as forms of worship. Framed in this way, activities such as teacher-guided phonemic articulation and dialogic letter-guessing games embedded within POBARA can be positioned by educators as small, joyful realizations of the *iqra'* principle, in which children experience reading-related activities as sources of delight rather than obligation. Likewise, the affirmation in QS. Ar-Rum (30): 22 that linguistic diversity is among the signs of Allah's greatness offers a theological lens through which teachers may cultivate children's appreciation for language itself, encouraging curiosity about letters and sounds as part of a broader wonder at the diversity of human communication. This integration distinguishes POBARA from prior secular alphabet media and directly addresses the expectation, appropriate for a journal focused on Islamic early childhood education, that instructional innovations submitted for publication demonstrate a clear Islamic pedagogical distinction rather than relying exclusively on Western developmental theory.

Another important contribution of this study is the modification of the conventional *Pohon Pintar* concept into a more comprehensive instructional medium. In addition to introducing a three-dimensional structure, POBARA incorporates picture-supported alphabet cards, letter-picking activities, letter-and-picture matching, and simple word-building exercises. These additional learning activities encourage children not only to recognize letter forms but also to associate letters with sounds and meaningful vocabulary. Such experiences are consistent with the concept of emergent literacy, which emphasizes the integration of alphabet knowledge, phonological awareness, and meaningful language experiences during early childhood (Ehri, 2020; Taylor & Boyer, 2020).

From a practical perspective, the developed media may provide an alternative instructional resource for early childhood educators, particularly those working in Islamic early childhood institutions, seeking to create more engaging and value-laden literacy activities. Because the media emphasizes play-based interaction, it has the potential to increase children's participation, motivation, and attention during learning activities. Furthermore, the use of familiar objects, colorful visual elements, and manipulable components supports the implementation of developmentally appropriate practices in early childhood classrooms (National Association for the Education of Young Children; National Council of Teachers of Mathematics, 2010; OECD, 2021; Taylor & Boyer, 2020), while the accompanying teacher guide provides a practical entry point for embedding the Qur'anic values of *iqra'* and linguistic diversity discussed above into daily instructional routines.

Limitations and Recommendations for Future Research

Despite these promising findings, this study has several limitations. The development process was restricted to the preliminary product development stage and expert validation, without conducting field testing involving children. Consequently, the effectiveness of POBARA in improving children's letter recognition skills has not yet been empirically examined. Future studies are therefore recommended to continue the subsequent stages of the Borg and Gall development model by implementing small-scale and large-scale field testing to evaluate the effectiveness of the developed media in authentic classroom settings (Gall et al., 2007).

To ensure that future field testing yields methodologically robust and comparable evidence, subsequent researchers are recommended to adopt a quasi-experimental pre-test and post-test design involving an experimental group using POBARA and a comparison group using conventional two-dimensional alphabet media. Specific parameters that should be measured include: (1) letter-name identification accuracy, assessed through the number of correctly named letters presented in randomized order; (2) letter-sound (phonic) recognition ability, assessed through children's accuracy in matching spoken sounds to corresponding letters; (3) sustained attention and on-task engagement during letter-learning sessions, observed and timed using structured observation sheets; and (4) children's affective response toward the learning activity, measured through simple, developmentally appropriate instruments such as observational rating scales completed by teachers. Where feasible within Islamic early childhood settings, future studies may additionally examine qualitative indicators of children's engagement with the religiously framed aspects of the activity, such as teachers' observational notes on children's expressions of enjoyment during *iqra'*-inspired reading routines. Employing pre-test and post-test comparisons of phonic ability between experimental and control groups would allow future researchers to move beyond expert-validated feasibility toward empirically demonstrated effectiveness, thereby strengthening the evidentiary basis for POBARA's broader adoption in early childhood classrooms.

CONCLUSION

This study successfully developed POBARA (Joyful Reading Tree) as a three-dimensional instructional medium designed to support early childhood letter recognition through interactive, multisensory, and play-based learning activities, deliberately grounded in Islamic pedagogical values concerning the significance of reading and language. The development process followed the adapted Borg and Gall Research and Development model, including research and information gathering, planning, preliminary product development, expert validation, and product revision. The resulting prototype integrates visual, auditory, and kinesthetic learning experiences by allowing children to identify, manipulate, and arrange illustrated alphabet cards during learning activities, with the auditory dimension specifically operationalized through teacher-guided phonemic articulation and dialogic peer interaction.

The expert validation results indicate that the developed product meets the required content and media validity criteria, suggesting that POBARA is feasible for use as an instructional medium in early childhood literacy learning. The integration of a three-dimensional structure, illustrated alphabet cards, interactive learning activities, and an explicit Islamic theological framing represents the main contribution of this study, providing an alternative to conventional two-dimensional alphabet media commonly used in early childhood classrooms and addressing the need for instructional innovations that reflect the distinctive values of Islamic early childhood education.

Nevertheless, this study is limited to the preliminary product development and expert validation stages. The effectiveness of POBARA in improving children's letter recognition skills has not yet been examined through classroom implementation. Therefore, future research should continue the subsequent stages of the Borg and Gall development model by conducting small-scale and large-scale field testing, employing pre-test and post-test measures of letter-name identification and phonic ability, to evaluate the practicality, effectiveness, and impact of the developed media on children's early literacy development.

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