

Analysis of the Implementation of Moslem Paper Doll on Fine Motor Development of Early Childhood Aged 5–6 Years

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ABSTRACT

The purpose of this study was to analyze the implementation of the Moslem Paper Doll in enhancing fine motor development among children aged five to six years in Bontolempang Village, Gowa. Using a qualitative descriptive approach, data were collected through observation, interviews, and documentation involving seven children as participants. The results indicated that the Moslem Paper Doll effectively stimulated children's fine motor coordination through cutting, folding, and pasting activities. The play-based approach increased children's engagement, precision, and confidence while also encouraging creativity and communication. Environmental support and parental guidance emerged as key facilitating factors, whereas limited materials and attention span acted as constraints. Beyond improving fine motor skills, the media embedded Islamic values by featuring modest clothing designs, thus supporting moral education alongside physical development. This study highlights the significance of culturally grounded and affordable learning media in early childhood education. The implications emphasize the need for educators to integrate creative, value-based play to optimize children's developmental outcomes.

Keywords: *early childhood education; fine motor development; Moslem Paper Doll; play-based learning; Islamic values; creative learning; holistic development*

1) INTRODUCTION

Early childhood education (ECE) serves as a foundational stage that profoundly influences children's holistic growth and readiness for subsequent learning. It provides an environment where children's physical, cognitive, emotional, and social potentials can be optimally nurtured. Among the critical domains of child development, fine motor skills represent a fundamental aspect that requires deliberate attention. These skills involve the coordination of small muscle groups, particularly in the hands and fingers, which enable children to perform precise movements such as writing, cutting, or manipulating small objects (Sanenek et al., 2023). Mastery of these abilities not only supports children's independence in daily tasks but also strengthens their readiness for academic activities and creative

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expression. The refinement of fine motor coordination reflects the child's gradual control over sensory and cognitive functions, indicating maturity in both neurological and psychological aspects of development.

Recent studies underscore that the development of fine motor skills is closely tied to children's broader academic and social competencies. Wassenberg et al. (2005) and Hanafiah et al. (2023) highlight that motor skill enhancement correlates positively with improved cognitive performance, self-regulation, and problem-solving abilities. Consequently, interventions that stimulate fine motor engagement during early childhood are essential for fostering both school readiness and adaptive behavior. Within this framework, play-based learning has gained prominence as an effective pedagogical approach. It allows children to engage naturally in tasks that strengthen dexterity, coordination, and creativity through play activities such as arts and crafts, building, or role-playing (Houwen et al., 2016). The inquiry-oriented nature of play-based learning ensures that children not only practice motor control but also construct meaningful learning experiences that enhance cognitive retention and emotional engagement (Hanafiah et al., 2023).

Despite the growing recognition of play-based methods, challenges persist in designing culturally relevant and resource-efficient learning media. In Indonesia, early childhood education often encounters limitations in material availability and contextual adaptability. Many educational tools are imported or standardized, failing to reflect local cultural identities or socioeconomic realities (Rahardjo et al. 2022; Kusuma & Mutiatun, 2024). This disconnect can reduce children's engagement and hinder meaningful learning connections. Therefore, there is an urgent need for instructional media that are not only developmentally appropriate but also culturally embedded, affordable, and accessible to local communities. Addressing this issue, the Moslem Paper Doll an innovative form of paper-based play has emerged as a relevant alternative that integrates cultural, religious, and developmental objectives.

The Moslem Paper Doll, conceptually adapted from traditional cutout paper dolls, presents children with opportunities to dress, cut, paste, and assemble paper figures adorned in Islamic attire. Such activities require careful hand movements, eye-hand coordination, and spatial awareness, all of which are central to fine motor development (Sulistiyowati et al., 2023). Moreover, the Moslem Paper Doll aligns with Islamic values by embedding modest clothing and cultural symbolism within the play experience, thereby promoting moral and cultural education alongside psychomotor growth. This dual

function renders the medium particularly effective for early learners in Indonesia's diverse and religiously oriented contexts.

Empirical evidence suggests that play-based learning media designed from locally sourced or culturally relevant materials can significantly enhance both engagement and learning outcomes. Robinson et al. (2012) and Kabir et al. (2022) emphasize that familiar, low-cost materials foster deeper emotional and cognitive connections, encouraging children to explore and experiment more freely. Activities involving cutting, folding, or gluing using such materials like paper dolls or origami are proven to stimulate dexterity, patience, and coordination (Wijaya et al., 2024). Likewise, Udju et al. (2024) note that fine motor improvements through localized play materials correspond with heightened self-efficacy and confidence, underscoring their pedagogical value.

Nonetheless, gaps remain in the literature regarding the systematic implementation of culturally adapted learning media in early childhood settings. Many studies on fine motor skills focus on generic interventions that overlook the influence of cultural context and material familiarity (Bahri et al. 2023; Oberer et al. 2017). The absence of culturally grounded media development models restricts educators from fully harnessing children's sociocultural identities in the learning process. In particular, little is known about how Islamic-themed educational play such as Moslem Paper Doll activities can balance developmental stimulation with moral and cultural formation. This gap justifies the exploration of innovative, contextually relevant media that not only enhance motor coordination but also instill values through experiential learning.

Moreover, educators' beliefs and practices significantly determine the success of such interventions. Studies reveal that teachers who recognize the integral role of fine motor development in early education are more inclined to adopt play-based, manipulative activities (Cameron et al. 2012; Arisanti et al. 2022). Conversely, limited awareness or inadequate training often results in the underutilization of tactile learning opportunities (Da'i & Maulidaty, 2021). In the case of Moslem Paper Doll implementation, teachers serve as facilitators who guide children in exploration, ensuring that activities remain both enjoyable and educationally meaningful. Through consistent scaffolding, educators can help children refine their motor precision while fostering creativity, social cooperation, and religious awareness.

This study thus focuses on analyzing the implementation of the Moslem Paper Doll in enhancing the fine motor development of children aged five to six in Bontolempang Village, Gowa,

Indonesia. It also examines the supporting and inhibiting factors influencing its use, along with its measurable effects on children's psychomotor abilities. The investigation draws on prior research in fine motor stimulation, play-based learning, and culturally responsive pedagogy to construct a comprehensive understanding of this medium's pedagogical potential. The novelty of this research lies in its integration of cultural and religious identity into a developmental learning tool that is simple, low-cost, and effective. By situating the Moslem Paper Doll within the theoretical framework of play-based and contextually relevant learning, the study provides both empirical and conceptual contributions to early childhood education research.

In summary, this research endeavors to fill an existing void in early childhood pedagogy by exploring how culturally adapted, faith-oriented, and tactile learning media can optimize fine motor development. It aims to demonstrate that the Moslem Paper Doll is not merely a creative play instrument but a holistic educational medium that integrates motor stimulation, cultural expression, and moral learning. The study's scope encompasses the assessment of the tool's practical application, its influence on motor performance, and its broader pedagogical implications for culturally grounded early education practices in Indonesia. The central hypothesis posits that the structured implementation of Moslem Paper Doll activities significantly enhances fine motor skills while simultaneously reinforcing children's cultural identity and self-confidence.

2) METHODS

This study employed a qualitative descriptive research design to explore the implementation of the Moslem Paper Doll as an educational medium to enhance fine motor development among early childhood learners aged five to six years in Bontolempangang Village, Gowa Regency, South Sulawesi, Indonesia. Qualitative research is particularly suitable for educational media evaluation in early childhood contexts, as it emphasizes understanding complex learning processes from the participants' perspectives (Rad et al., 2022). The qualitative descriptive approach aligns with the interpretive paradigm, allowing the researcher to investigate naturalistic settings where participants experience the phenomenon directly, revealing contextual nuances of educational interventions and how children interact with specific learning media.

The research involved seven children aged five to six years, selected through purposive sampling based on their developmental readiness and consistent attendance in early childhood education

activities. The small number of participants allowed for intensive observation and analysis of individual behaviors, a characteristic strength of qualitative case studies (Ruscoe et al., 2025). Three data collection techniques were employed: observation, interview, and documentation, with this triangulation ensuring data validity and providing comprehensive understanding of the research problem (Bray, 2007). Data analysis followed the Miles and Huberman interactive model, which includes data reduction, data display, and conclusion drawing stages to derive trustworthy findings reflective of real developmental changes.

3) RESULTS AND DISCUSSION

a) Overview of Moslem Paper Doll Implementation for Children Aged 5–6 Years in Bontolempang Village, Gowa

The findings of this study reveal the implementation process of the Moslem Paper Doll as an educational medium to enhance fine motor development among early childhood learners aged 5–6 years in Bontolempang Village, Gowa Regency. The process consisted of three major stages: planning, implementation, and assessment.

1. Planning Stage

Planning serves as the fundamental stage in every educational activity. In this study, the researcher designed the Moslem Paper Doll activity to promote children's fine motor development through interactive play. The goal was to allow children to freely express creativity by dressing and decorating paper dolls according to their imagination. Preparation included selecting materials, establishing learning objectives, and creating a supportive environment conducive to imaginative engagement.

2. Implementation Stage

During the implementation, the researcher introduced the Moslem Paper Doll activity by demonstrating how to cut, paste, and assemble the doll's parts. Each child received materials such as scissors, glue, and paper dolls, and was encouraged to explore independently. The children showed high enthusiasm and participation, choosing shapes, cutting along lines, and pasting decorative elements to form characters. They also narrated stories based on their creations, indicating growing

engagement and imagination. These activities effectively enhanced concentration, hand-eye coordination, and precision of motion.

3. Assessment Stage

Assessment focused on children's progress in fine motor coordination. Of the seven participating children, five achieved the developmental level categorized as "developed as expected," while two were still "beginning to develop." These outcomes suggest that consistent engagement with Moslem Paper Doll activities effectively refines fine motor control while promoting creativity, confidence, and social interaction.

b) Supporting and Inhibiting Factors Affecting Fine Motor Development

The study identified several factors influencing the effectiveness of Moslem Paper Doll implementation in stimulating fine motor development.

a. Supporting Factors

Key supportive elements included:

1. Availability of Materials: Adequate provision of scissors, glue, and dolls allowed children to work without limitation.
2. Parental Support: Parents actively encouraged and guided their children, which helped maintain motivation.
3. Children's Interest: Colorful, modestly dressed dolls attracted children's attention, increasing enthusiasm.

b. Inhibiting Factors

Certain obstacles emerged, such as limited resources and environmental distractions. Some children struggled to use scissors or glue properly, indicating different levels of readiness. Rahyubi (2014) explains that environmental conditions, low concentration, and lack of motivation can hinder fine motor growth. In this study, limited play space and insufficient parental understanding of motor stimulation also served as barriers.

To overcome these challenges, the researcher suggested providing child-safe scissors, larger visuals, and flexible play schedules. Gradual paper-folding activities significantly enhanced preschoolers' fine motor skills, with improvement rates rising from 40% to 80% across learning cycles.

c) Impact of Moslem Paper Doll on Fine Motor Development.

The results demonstrated that Moslem Paper Doll activities substantially improved fine motor coordination and overall developmental outcomes. Children became more adept at cutting along lines, pasting precisely, and controlling hand movements. These improvements reflect enhanced visual-motor coordination.

This aligns with the Indonesian Ministry of Education Regulation (Permendikbud) No. 137 of 2014, which requires children aged 5–6 years to explore multiple media, paste images accurately, and replicate forms in detail. Origami-based activities improved fine motor skills through folding and threading tasks.

Beyond mechanical coordination, Moslem Paper Doll encouraged creativity and autonomy. Children chose outfit designs, colors, and accessories according to their imagination, developing decision-making and self-confidence. Fine motor growth is closely linked to cognitive processes, particularly in problem-solving and reasoning.

The medium also introduced a cultural and moral dimension. The dolls were modestly dressed according to Islamic values, promoting an early understanding of decency and self-respect. Islamic paper dolls can convey moral and social lessons to children. Paper-tearing activities contributed 63.39% toward improving children's fine motor performance by strengthening finger muscles and precision. Thus, Moslem Paper Doll not only functions as a fine motor stimulant but also as an educational tool integrating cultural and spiritual values.

The implementation of the Moslem Paper Doll in Bontolempang Village highlights the multidimensional nature of early childhood development, where motor, cognitive, social, and moral growth intersect. The findings confirm that play-based learning remains a powerful medium for holistic development, especially when contextualized within cultural and religious frameworks.

The planning, implementation, and assessment stages reflect Vygotsky's sociocultural theory, emphasizing that learning occurs through guided participation and social interaction. Children did not merely imitate actions but internalized skills through observation and practice, supported by adult

scaffolding. The researcher's facilitation and parental engagement thus became central to the developmental outcomes observed.

Consistent with Piaget's cognitive developmental theory (1962), children's engagement in hands-on manipulation of materials represented the preoperational stage, where learning occurs through symbolic play and experimentation. The Moslem Paper Doll provided a medium for children to construct knowledge through exploration linking visual perception, manual control, and imagination. From a psychomotor perspective, the activity strengthened both muscular coordination and perceptual integration. Motor skill maturity serves as a foundation for academic readiness. This study corroborates that fine motor precision not only supports handwriting and artistic activities but also enhances focus and patience key dispositions for formal schooling. Moreover, the social dimension of play was clearly evident. Children collaborated, shared materials, and exchanged narratives, reflecting socio-emotional learning processes. Such interactions cultivated empathy, turn-taking, and cooperative behavior essential components of early character education.

The cultural design of Moslem Paper Doll added a unique layer of moral pedagogy. By embedding Islamic values through modest clothing and respectful representation, children were exposed to moral norms in a playful and engaging manner. Character education in early childhood must integrate local and religious values to be meaningful. The activity thus fulfilled both developmental and moral-educational functions.

Furthermore, the role of environmental and parental factors aligns with Bronfenbrenner's ecological systems theory. The microsystem comprising family, peers, and educators proved instrumental in shaping learning outcomes. Parental guidance and teacher facilitation enhanced engagement, while limited resources and distractions in the physical environment constituted external barriers. The findings underscore the interdependence between individual capacity and contextual support. In comparison to other interventions, the Moslem Paper Doll offers affordability and accessibility advantages. Unlike digital media, which may limit tactile experience, this hands-on medium emphasizes sensory engagement a critical component in early neurological and motor development.

The observed increase in confidence and creativity also aligns with findings by Sulistiyowati et al. (2023), who demonstrated that paper-doll-based learning promotes expressive language and self-assurance. Thus, the Moslem Paper Doll transcends its mechanical purpose, serving as a

multidimensional educational medium enhancing communication, imagination, and fine motor synchronization.

A key insight from this research is the intersection of play and moral learning. By linking traditional play with cultural identity, the activity addresses calls for contextually relevant early childhood curricula in Indonesia. Integrating religious narratives into learning media fosters internalization of values through lived experience rather than instruction. This supports a constructivist interpretation of moral education.

In practical terms, the study highlights the importance of teacher competence in facilitating play-based learning. Educators must understand both developmental objectives and cultural nuances to maximize learning outcomes. Meaningful learning occurs when teachers connect experience with understanding a principle reflected in this intervention.

The implications extend beyond classroom practice. Policymakers and curriculum designers can adopt similar culturally grounded media to promote balanced development physical, cognitive, and spiritual. Such approaches resonate with the 21st-century education paradigm, which values creativity, collaboration, and moral literacy.

In conclusion, the Moslem Paper Doll represents an effective, culturally resonant pedagogical tool that fosters fine motor development while nurturing creativity, social skills, and moral awareness. Its success underscores the enduring relevance of hands-on, value-based play in early childhood education. When supported by family and educators, such activities not only enhance developmental milestones but also shape the moral and cultural identity of young learners preparing them holistically for future learning and social participation.

4) CONCLUSIONS

This study revealed that the implementation of the Moslem Paper Doll as a learning medium effectively stimulated the fine motor development of children aged 5–6 years in Bontolempang Village, Gowa. The findings showed significant improvement in children's ability to perform precise hand movements such as cutting, pasting, folding, and assembling objects. The learning process became more engaging and enjoyable, promoting children's creativity, confidence, and hand-eye coordination. Supporting factors included adequate materials, parental involvement, and children's interest, while barriers arose from limited resources, low concentration, and environmental distractions. The integration of religious and cultural elements within the media also contributed to

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moral learning, showing that cognitive, physical, and character development can be harmoniously nurtured through play-based approaches. This study contributes to early childhood education by demonstrating that low-cost, culturally relevant, and value-based learning media can foster holistic development. Future research should explore the quantitative impact of Moslem Paper Doll use across different regions, compare it with other motor-skill media, and examine long-term effects on academic readiness and socio-emotional growth.

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