

Ethnopedagogical Analysis of Sunan Giri Mosque Ornaments in Fostering Elementary School Students' Creativity

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Abstract: Ornamental heritage embedded in classical mosque architecture holds considerable but underexploited pedagogical value for cultivating creativity among elementary school learners. This study examines how the decorative motifs of Sunan Giri Mosque in Gresik, East Java, can be transformed into an ethnopedagogical resource that stimulates fifth-grade students' creative thinking through observation, imitation, and reinterpretation of local ornamental forms. A qualitative design combining ornament observation and literature review was employed, integrating documentary analysis of a teaching module, *Bahan Ajar Ragam Hias Kreatif: Ornamen Masjid Sunan Giri*, with two academic studies describing the formal and symbolic characteristics of lung-lungan, patran, tlacapan, saton, praba, garuda, and surya majapahit motifs. Data were analyzed through reduction, categorization, and interpretive synthesis to trace the translation of architectural ornament into classroom activities. Findings show that the module converts nine ornament categories into observation, coloring, and creative design tasks that guide students from motif recognition toward independent stylization of natural forms, following a sequence consistent with established creativity-development stages in ethnomathematics and ethnosience research. The symbolic meanings attached to each motif, including protection, enlightenment, and social solidarity, further provide affective anchors that strengthen engagement. This study concludes that curated ornamental heritage offers a replicable ethnopedagogical model for nurturing creativity, cultural pride, and aesthetic literacy among primary school students.

Keywords: Ethnopedagogy; Ornament; Sunan Giri Mosque; Creativity; Elementary Education

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INTRODUCTION

Indonesian primary education under the Kurikulum Merdeka framework increasingly demands learning materials that connect national competency standards with the lived cultural environment of students, yet many art and culture textbooks remain generic and disconnected from region-specific heritage. Elementary school students in Gresik, East Java, are surrounded by one of the most architecturally distinctive Islamic heritage sites in Indonesia, namely Sunan Giri Mosque, whose ornamentation reflects a rare fusion of pre-Islamic Hindu-Buddhist aesthetics and Islamic religious values (Pradana 2020). Despite this proximity, systematic pedagogical documentation that converts such heritage into structured classroom activity for creativity development remains scarce in the available literature. Recent studies on ethnopedagogy have demonstrated that embedding local cultural artifacts into instructional design significantly enhances students' motivation, conceptual understanding, and creative thinking capacity (Mandala, Hidayah, and Rahmawati 2024; Zainovi et al. 2025). However, most of these studies address ethnomathematics or ethnoscience contexts rather than visual art education rooted in architectural ornament. This gap indicates that although the theoretical foundation linking local wisdom to creativity is robust, its empirical application to Islamic heritage ornamentation as an artistic learning medium for elementary students has not yet been thoroughly explored. Consequently, the present study addresses this unexplored intersection between heritage architecture, ethnopedagogy, and creativity pedagogy.

Ornamentation on classical Javanese mosques constitutes more than decorative embellishment; it encodes layered symbolic meaning transmitted through stylized floral, geometric, and zoomorphic motifs that were deliberately adapted to comply with Islamic prohibitions against depicting living beings (Pradana 2020). Comparative studies of Wali-era mosques, including Sunan Ampel, Sunan Giri, and Sunan Sendang, confirm that these ornaments consistently represent an acculturation process between Hindu-Buddhist Majapahit iconography and Islamic religious ethics (Budiono, Rachmaniyah, and Anggraita 2021). This acculturative characteristic makes mosque ornament a particularly rich pedagogical object because it simultaneously teaches historical acculturation, symbolic literacy, and formal visual vocabulary. This is consistent with semiotic and historical-cultural analysis of ornament across several Javanese mosques, which confirms

that decorative motifs function as a coded visual language transmitting both aesthetic and religious meaning to worshippers (Sunaryo, Sahid, and Nizam 2017). Nevertheless, existing architectural and semiotic research on these ornaments has been produced almost exclusively for academic architecture and design audiences, with terminology and analytical depth unsuited for direct classroom use by children. Bridging this technical-academic material with age-appropriate pedagogical scaffolding therefore requires an intermediary translation process, which is precisely the function performed by locally developed teaching modules such as the one analyzed in this study. Without such translation, rich cultural material risks remaining inaccessible to the very community it originates from, namely the schoolchildren living within its cultural landscape.

Creativity development in primary education has received sustained scholarly attention, with meta-analytic evidence indicating that culturally contextualized approaches produce substantially larger effect sizes on students' creative thinking than conventional abstract instruction (Mandala et al. 2024). Ethnoscience-based learning has similarly been shown to correlate positively with academic creativity, suggesting that cultural grounding functions as a catalyst rather than a peripheral enrichment activity (Kesumah et al. 2025). This catalytic function aligns with foundational perspectives on creative ability development in primary school pupils, which argue that creativity is not an innate fixed trait but a teachable capacity requiring deliberate, culturally meaningful stimulation from an early age (Kulboyeva 2023). Differentiated and culturally responsive pedagogy further contributes to sustained learning interest, which is a necessary precondition for creative engagement to be maintained over time (Nurmala, Paik, and Fitriani 2025). These converging findings from ethnomathematics, ethnoscience, and differentiated instruction research collectively establish a strong theoretical rationale for extending the same principles to visual arts education based on architectural heritage. This rationale is further reinforced by evidence that ethnomathematics-based instruction rooted in local wisdom produces measurable improvement in students' mathematical creative thinking skills, indicating that cultural grounding functions consistently as a creativity catalyst across disciplinary boundaries (Arion 2024). Yet none of these studies specifically investigate how a structured, motif-by-motif observation of religious architectural ornament can be sequenced into a creativity-building curriculum for ten- to eleven-year-old learners. This

absence constitutes the central knowledge gap that the present research seeks to address through an integrated qualitative examination of ornament and pedagogy.

The teaching module analyzed in this study, *Bahan Ajar Ragam Hias Kreatif: Ornamen Masjid Sunan Giri*, represents a locally initiated attempt to operationalize ethnopedagogical theory into a concrete fifth-grade art curriculum aligned with the Fase C learning outcomes of Kurikulum Merdeka. The module sequences narrative framing, factual exposition of ornament types, guided observation exercises, coloring activities, and open-ended creative design tasks derived from natural forms such as flowers, leaves, birds, and waves. This pedagogical sequence mirrors the scaffolding principle central to creativity training programs, in which structured exposure to cultural exemplars precedes independent creative production (Ruiz-del-Pino, Fernández-Martín, and Arco-Tirado 2022). This scaffolding logic is echoed in recent work on integrating ethnopedagogy with cultural arts education, which emphasizes that preserving local heritage through structured arts instruction simultaneously safeguards cultural memory and cultivates creative competence in the era of globalization (Putra, Muryasari, and Medilianasari 2024). At the same time, the symbolic content embedded within each motif, including patran as a symbol of protection, tlacapan as a symbol of divine enlightenment, and saton as a symbol of submission to God, offers an affective dimension that pure formal replication exercises typically lack. A comparable affective-cognitive integration has been documented in character education models that embed local philosophical values into deep learning approaches, showing that value-laden cultural content strengthens both moral internalization and cognitive engagement among elementary learners (Salmia, Kadir, and Alka 2025). Understanding whether and how this dual formal-symbolic structure functions pedagogically requires systematic qualitative analysis rather than assumption, which is the primary contribution this study intends to make.

Prior research on Sunan Giri Mosque ornamentation has established a reliable descriptive foundation regarding motif classification, spatial placement, and symbolic interpretation, most notably through detailed documentation of lung-lungan, padma, tlacapan, saton, kebenan, garuda, praba, and surya majapahit motifs distributed across the paduraksa gate, supporting pillars, sunduk beams, mihrab, and ceiling (Pradana 2020). A subsequent comparative study extended this documentation by mapping equivalent ornament types across three East Javanese Wali mosques, confirming that similar motifs recur with

locally inflected meanings across sacred structures associated with the nine Islamic saints (Budiono et al. 2021). These two studies together constitute the most complete available corpus of formal-symbolic data on Sunan Giri Mosque ornament, yet both remain confined to architectural documentation without any pedagogical application or classroom-oriented reinterpretation. The state of the art therefore shows a clear division between architecture-oriented heritage documentation on one side and creativity-oriented ethnopedagogy research on the other, with almost no published work connecting the two domains through a concrete instructional artifact. This division represents a substantive research gap because heritage documentation alone does not automatically translate into effective learning, just as generic creativity pedagogy without authentic cultural content risks losing the local relevance shown to enhance student engagement (Putri, Jasruddin, and Mustafa 2024). This concern is corroborated by evidence that learning materials explicitly designed around local wisdom, rather than adapted generically, are significantly more effective at cultivating both critical and creative thinking among primary school students (Noorhapizah, Agusta, and Pratiwi 2020). Addressing this gap requires an interdisciplinary qualitative inquiry capable of reading architectural ornament simultaneously as cultural artifact and as pedagogical resource.

Building upon these identified gaps, the present study formulates its central research problem as follows: how does the ethnopedagogical translation of Sunan Giri Mosque ornament into a structured teaching module function to foster creativity among elementary school students, and to what extent does this translation align with existing theoretical models of culturally grounded creativity development. This research is conducted through a qualitative design that combines direct observation and content analysis of ornamental motifs documented in academic architectural sources with systematic literature review of ethnopedagogy and creativity studies published within the last three years. The study aims first to describe the formal and symbolic characteristics of Sunan Giri Mosque ornament as represented in the analyzed teaching module, second to analyze the pedagogical sequencing through which these ornaments are converted into classroom activities, and third to evaluate this sequencing against contemporary ethnopedagogical creativity frameworks. By fulfilling these aims, the study is expected to contribute both a concrete case example for art education practitioners seeking to localize their curriculum and a conceptual bridge linking heritage architecture scholarship

with primary education pedagogy. This contribution responds directly to documented gaps in local-wisdom-based thematic learning resources for elementary education, where the strategy, type, and effectiveness of such resources remain insufficiently mapped despite growing curricular demand under Kurikulum Merdeka ([Eriyana Ernandhita Pratiwi et al. 2025](#)). It further extends existing regional case studies on local wisdom within Kurikulum Merdeka, such as those documenting the persistence of Balinese local wisdom in elementary school curricula, by offering a comparable East Javanese case grounded in Islamic architectural heritage ([Wahyuni et al. 2023](#)). Ultimately, this research positions Sunan Giri Mosque ornament not merely as an object of architectural preservation but as an active pedagogical resource capable of nurturing the creative capacities of the generation who will inherit its cultural legacy.

METHODS

This study employs a qualitative descriptive design combining documentary ornament observation with a structured literature review, chosen because the research problem requires interpretive understanding of both visual-symbolic data and pedagogical process rather than numerical measurement. The primary data source consists of a locally developed teaching module, *Bahan Ajar Ragam Hias Kreatif: Ornamen Masjid Sunan Giri*, compiled for fifth-grade students under the Fase C Kurikulum Merdeka framework, which was analyzed page by page to identify its narrative structure, content sequencing, and creative activity design. This primary source was triangulated with two peer-reviewed academic studies that provide detailed architectural documentation of Sunan Giri Mosque ornament, namely a descriptive qualitative study focusing exclusively on the mosque's motifs and symbolic meanings ([Pradana 2020](#)) and a comparative study mapping ornament across three East Javanese Wali mosques ([Budiono et al. 2021](#)). The use of multiple document types allowed cross-verification between the simplified pedagogical representation intended for children and the more technical architectural description intended for scholarly audiences, thereby strengthening the credibility of the interpretive analysis.

Data collection followed three sequential stages, namely document compilation, motif categorization, and pedagogical sequence mapping. In the compilation stage, all textual and visual content from the teaching module was inventoried according to page function, including narrative introduction, factual exposition, guided observation tasks, coloring

exercises, and open creative production tasks. In the categorization stage, each ornament type mentioned across the three sources, comprising lung-lungan, patran, tlacapan, saton, praba, garuda, kebenan, padma, and surya majapahit, was cross-tabulated according to its formal description, symbolic meaning, and spatial location within the mosque as reported in the architectural sources. In the pedagogical sequence mapping stage, each classroom activity within the teaching module was matched against the categorized motif data to determine which specific ornaments were selected for pedagogical use and how these selections were adapted into age-appropriate observation, coloring, and creative design instructions. This three-stage procedure enabled systematic identification of the translation mechanism connecting raw architectural heritage data to structured creativity-oriented classroom tasks.

Data analysis employed the qualitative technique of data reduction, data display, and conclusion drawing as commonly applied in descriptive qualitative research on cultural artifacts (Pradana 2020). Reduction was conducted by filtering redundant descriptive information across the two architectural sources and retaining only motif characteristics directly relevant to the pedagogical translation process. Data display was achieved through comparative matrices that align architectural motif description with corresponding pedagogical activity, allowing patterns of correspondence and divergence to be visually inspected. Conclusions were drawn through interpretive synthesis informed by recent ethnopedagogy and creativity literature published primarily between 2023 and 2025, ensuring that the interpretation of pedagogical effectiveness is grounded in contemporary theoretical benchmarks rather than isolated researcher judgment. Table 1 below summarizes the data sources, collection techniques, and analytical focus applied throughout this research process.

Table 1. Data Sources, Collection Techniques, and Analytical Focus

No.	Data Source	Type	Collection Technique	Analytical Focus
1	Bahan Ajar Ragam Hias Kreatif: Ornamen Masjid Sunan Giri	Primary, pedagogical module	Documentary content inventory	Instructional sequencing and creativity task design
2	Bentuk dan Makna Simbolik Ragam Hias pada Masjid Sunan Giri (Pradana 2020)	Secondary, academic architecture study	Documentary motif extraction	Formal description and symbolic meaning of ornament
3	Ornamen Masjid Sunan Ampel, Sunan Giri, dan	Secondary, comparative	Documentary motif extraction	Cross-mosque ornament comparison

	Sunan Sendang (Budiono et al. 2021)	architecture study		and acculturation pattern
4	Ethnopedagogy and creativity literature (2019 to 2025)	Secondary, systematic literature review	Thematic literature synthesis	Theoretical benchmarking of creativity development stages

The table above indicates that data triangulation across pedagogical and architectural sources, supported by contemporary literature synthesis, forms the methodological backbone of this study. This combination allows the research to move beyond mere architectural description toward an evaluative account of how cultural ornament functions as a creativity-building pedagogical resource, which constitutes the core analytical contribution of the following results and discussion sections.

RESULTS

Analysis of the teaching module reveals a deliberate thirteen-section structure beginning with a cover page and narrative introduction and concluding with reflective self-assessment, indicating that the material was designed as a complete instructional unit rather than a loose collection of worksheets. The opening pages introduce two child characters, Giri and Gita, who guide the reader through a dialogic narrative frame that situates ornament learning within a friendly, non-intimidating context appropriate for ten- to eleven-year-old learners.



Figure 1. cover page of Bahan Ajar Ragam Hias Kreatif: Ornamen Masjid Sunan Giri

Following the introductory pages, the module presents the Capaian Pembelajaran, Tujuan Pembelajaran, and Alur Tujuan Pembelajaran, which formally align the material with the national creativity-oriented competency standard requiring students to recognize, appreciate, and create two-dimensional artworks inspired by local culture. This formal alignment is significant because it demonstrates that the ornament content was not inserted as supplementary enrichment but was structurally embedded within the official learning outcome architecture from the outset. The module then transitions into content exposition across two general stages, namely a broad introduction to the concept of ragam hias as a cultural phenomenon found in batik, wood carving, and pottery, followed by a specific, in-depth exposition of Sunan Giri Mosque ornament. Table 2 summarizes the nine ornament categories presented in the module together with their formal description, spatial location within the mosque, and symbolic meaning as cross-verified against the two academic architectural sources.

Table 2. Categorization of Sunan Giri Mosque Ornament Motifs Presented in the Teaching Module

No.	Motif	Formal Description	Spatial Location in the Mosque	Symbolic Meaning
1	<i>Patran</i>	Stylized leaves and floral buds arranged in alternating rows	Paduraksa gate, pillar base, mihrab area	Protection and comfort for worshippers
2	<i>Tlacapan</i>	Layered leaf motifs forming isosceles triangles, mirrored and repeated	Gate tumpangsari, middle section of soko guru pillars	Hope for divine guidance and enlightenment
3	<i>Lung-lungan</i>	Stylized climbing plant with stem, leaf, and flower resembling kangkung and lotus	Kupu tarung door, pillar base	Social solidarity and mutual assistance
4	<i>Saton</i>	Simple rectangular motif without floral ornament, resembling traditional cake	Base of tlacapan on middle pillar section	Submission and surrender to God
5	<i>Praba</i>	Radiating tendril forms with pointed tips and flat base	Upper pillar section, sunduk and kili beam	Purity of heart and mind, spiritual light
6	<i>Garuda</i>	Stylized wings (lar) of the mythical Garuda bird, without full body depiction	Ends and middle of sunduk and kili beams	Eradication of evil and protection of virtue
7	<i>Kebenan</i>	Square-based form tapering to a single point, resembling keben fruit	Upper section of mihrab and pulpit	Reminder of the journey from mortal life to the afterlife

8	<i>Padma</i>	Blooming red lotus flower with circular center	Ceiling, base of hanging lamp	Purity of heart during worship
9	<i>Surya Majapahit</i>	Eight-pointed radiating star resembling the sun	Middle of praba composition on beams and pillars	Respect for Majapahit heritage and the nine Islamic saints

The comparative data in Table 2 demonstrate that floral and vegetal motifs, namely *patran*, *tlacapan*, and *lung-lungan*, dominate the lower and entrance sections of the mosque, whereas zoomorphic and cosmological motifs, namely *garuda* and *surya majapahit*, are concentrated in upper structural elements such as beams and pillar capitals. This spatial hierarchy corresponds closely with the descriptions provided in the architectural sources, in which vegetal ornament tends to occupy accessible eye-level surfaces while symbolically weightier motifs occupy elevated, less accessible positions (Budiono et al. 2021; Pradana 2020). A comparable sequential arrangement of gate ornament has also been documented in the Sunan Ampel heritage tourism complex, where successive *gapura* ornaments are structured to correspond symbolically with the five pillars of Islam as pilgrims move through the site, indicating that spatially sequenced ornament placement is a recurring design principle across Wali-era religious complexes (Suprihardjo 2016).

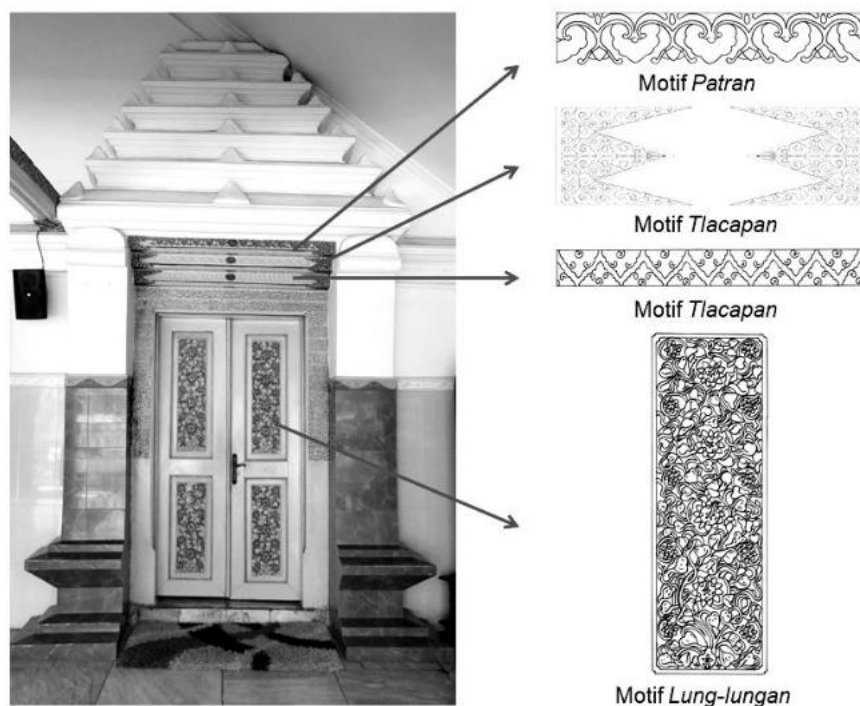


Figure 2. Photograph of Sunan Giri Mosque's paduraksa entrance door with annotated arrows pointing to Motif Patran, Motif Tlacapan, and Motif Lung-lungan (Pradana 2020)

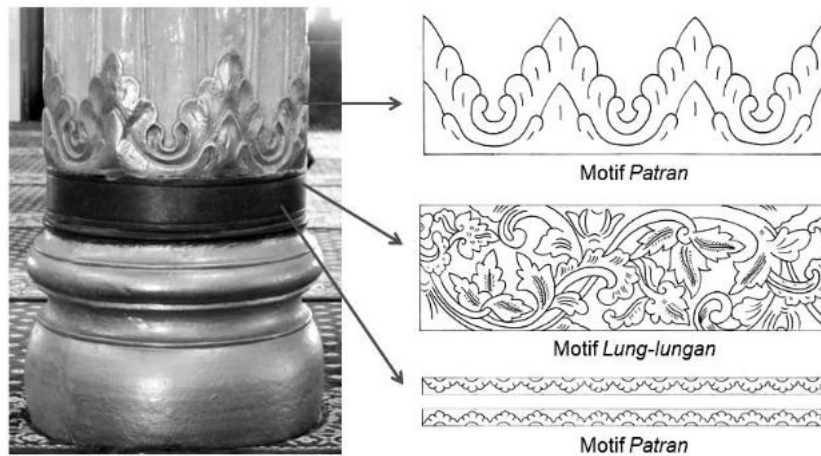


Figure 3. Photograph of the pillar base (soko guru) showing the combined patran and lung-lungan carvings (Pradana 2020)

Within the teaching module itself, these nine motif categories are not presented as an undifferentiated list but are sequenced across three progressively demanding pedagogical stages, namely recognition, guided reproduction, and independent creation. In the recognition stage, spanning pages 6 through 12 of the module, students are asked to identify ornament in familiar surroundings, connect motif images to the objects they decorate, and read narrative exposition on the historical role of Sunan Giri Mosque as a center of Islamic education and culture in fifteenth-century Gresik.

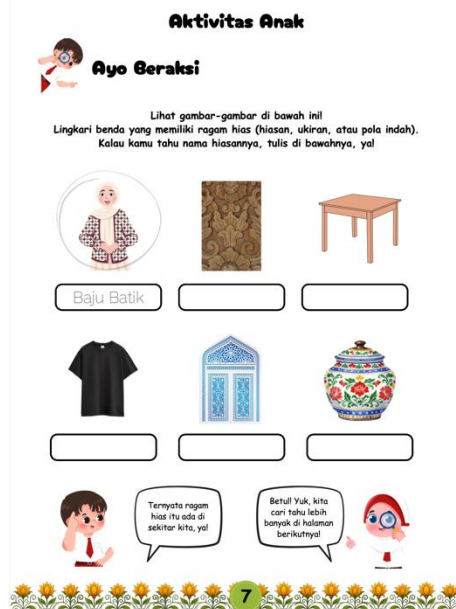


Figure 4. Activity page titled Ayo Beraksi]

In the guided reproduction stage, spanning pages 13 through 17, the module presents black-and-white line drawings of all nine motifs described in Table 2, accompanied by short symbolic explanations phrased in child-friendly language, followed by a coloring activity in which students are instructed to apply natural colors such as wood brown and leaf green to a composite lung-lungan carving.

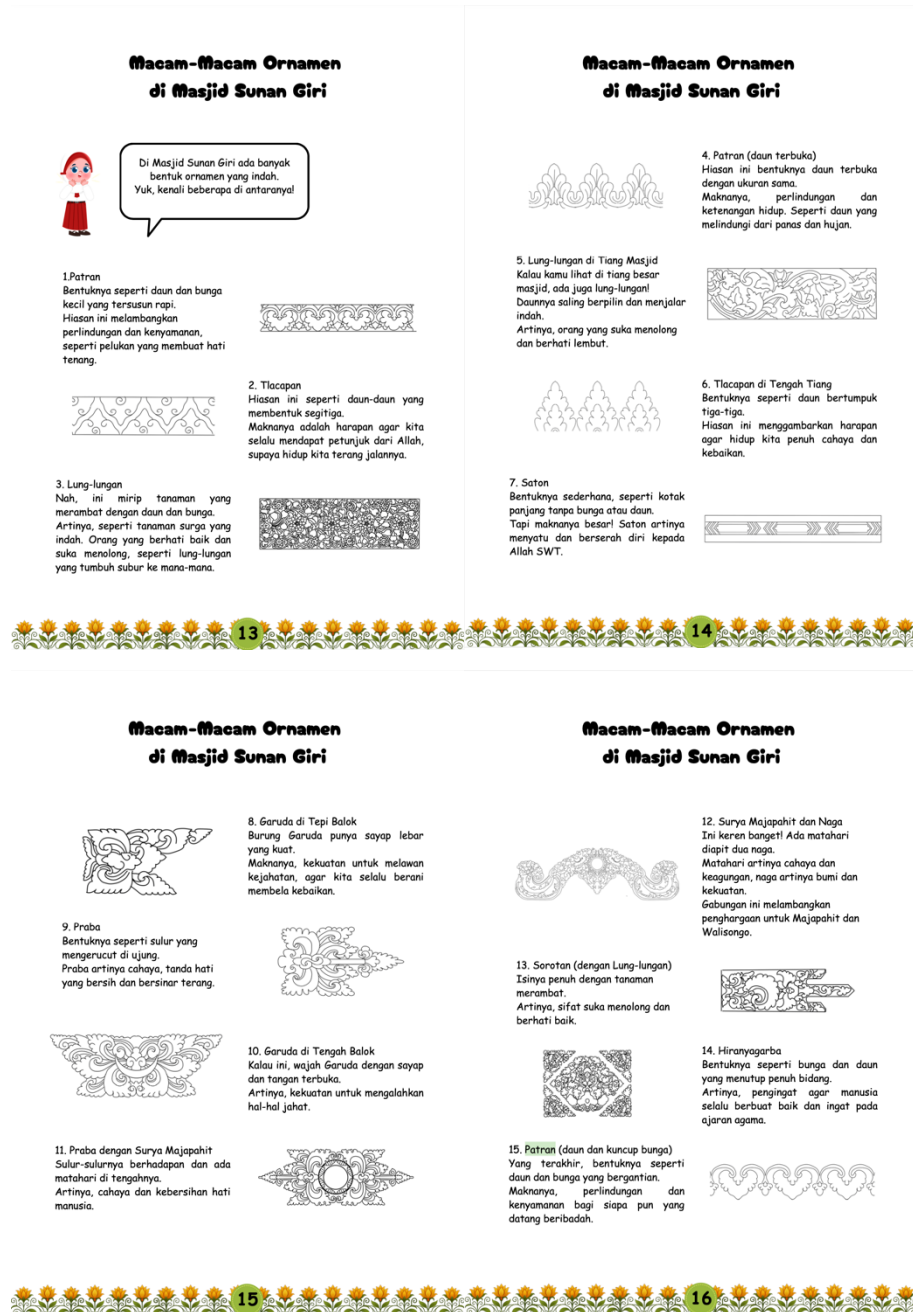


Figure 5. line-drawing illustrations of the nine ornament motifs

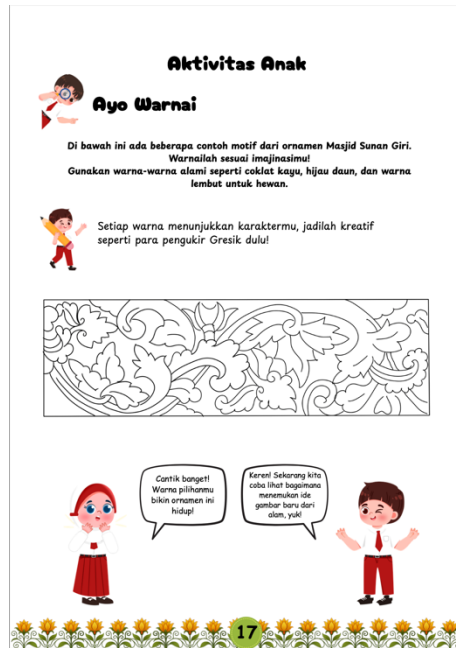


Figure 6. The Ayo Warnai coloring activity

In the final, independent creation stage, spanning pages 18 through 20, the module explicitly instructs students to observe plants and animals in their immediate environment and design an original decorative pattern inspired by, but not identical to, the mosque motifs they have studied, followed by a structured self-reflection activity addressing which motif they liked most, what new knowledge they gained, what new design idea they produced, and how they felt about the learning process.

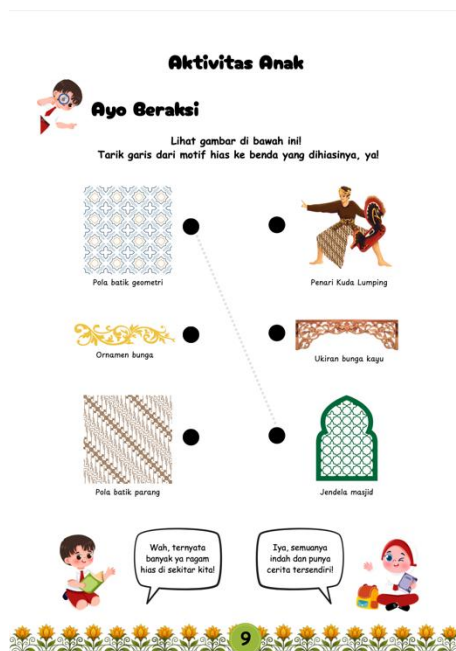


Figure 7. The Ayo Berkreasi blank creative design activity**Figure 8.** The Aktivitas Refleksi self-reflection

Cross-referencing the module's three-stage sequence against the symbolic content summarized in Table 2 reveals that every motif selected for detailed exposition carries an explicitly stated positive moral or spiritual value, such as protection, enlightenment, solidarity, or purity, rather than being presented as purely decorative form. This consistent pairing of formal visual instruction with symbolic-affective framing distinguishes the module from a conventional drawing worksheet and positions it as a genuinely ethnopedagogical artifact in which cultural meaning and creative skill-building are structurally interdependent rather than separately delivered.

DISCUSSION

The recognition-to-creation sequence identified in the teaching module demonstrates that Sunan Giri Mosque ornament functions pedagogically as a scaffolded creativity pathway rather than as isolated cultural trivia. This sequencing pattern emerged directly from the module's page-by-page progression, beginning with everyday object recognition on pages 6 to 9, advancing through detailed motif exposition and guided coloring on pages 13 to 17, and culminating in an open-ended design task on page 19 that explicitly permits deviation from the original architectural form. Such graduated exposure aligns closely with meta-analytic findings showing that structured, multi-session creativity training

programs produce measurable gains in divergent thinking among primary school children when exposure precedes independent production (Ruiz-del-Pino et al. 2022). This finding is further supported by an experimental study demonstrating that a structured cognitive pathway delivered across multiple classroom sessions significantly enhances divergent creative thinking among Italian primary school students compared with a non-intervention control group (Lucchiari, Sala, and Vanutelli 2019). This alignment is further reinforced by evidence that culturally grounded ethnomathematics instruction achieves substantially larger effect sizes on creative thinking than culturally neutral instruction, precisely because familiar cultural referents reduce cognitive load during the recognition phase and free capacity for creative elaboration in later stages (Mandala et al. 2024). Some digital heritage education research, by contrast, emphasizes immersive three-dimensional reconstruction as the primary mechanism for engaging students with architectural heritage, a resource-intensive approach unavailable to the low-cost print module examined here (Rodriguez-Garcia et al. 2024). The convergence between the module's low-technology scaffolding and high-technology heritage engagement literature nonetheless suggests that structured progression, rather than technological sophistication per se, is the operative variable driving creativity outcomes in culturally grounded instruction.

The explicit pairing of formal motif instruction with symbolic-moral meaning represents a second major finding, since every ornament selected for classroom use, including patran, tlacapan, and saton, was accompanied by a stated ethical or spiritual value rather than purely aesthetic description. This pairing was traced directly to the module's own textual structure, in which each motif entry on pages 13 to 16 follows an identical two-part format consisting of formal description followed immediately by symbolic interpretation drawn in simplified language from the mosque's religious function. The pattern mirrors findings from wayang-based Islamic education research, which shows that internalizing religious values through culturally embedded artistic media produces stronger value retention than direct moral instruction delivered without cultural mediation (Sari et al. 2024). It is further consistent with evidence that positive perceptions of ethnoscience content correlate meaningfully with measured academic creativity, indicating that affective engagement with cultural meaning does not compete with but rather reinforces cognitive creative performance (Kesumah et al. 2025). This reinforcing

relationship is echoed in systematic review evidence showing that local-wisdom-based learning strengthens not only cognitive creativity but also communication and collaboration skills among elementary students, suggesting that symbolic-formal pairing strategies may yield benefits extending beyond creativity alone (Oktaviani et al. 2025). Some character-education studies employing traditional games instead locate the primary developmental mechanism in physical and social interaction rather than symbolic content absorption, suggesting an alternative pathway to character formation that the ornament-based module does not directly employ. Taken together, these comparisons indicate that the module's symbolic-formal pairing strategy is well supported by the broader literature specifically where visual or narrative cultural artifacts, rather than physical or interactive ones, serve as the primary pedagogical medium.

The spatial hierarchy of ornament placement documented in Table 2, wherein vegetal motifs occupy lower, accessible surfaces while cosmological motifs occupy elevated structural elements, provides an unplanned but pedagogically useful organizing principle absent from explicit statement in the module itself. This hierarchy was reconstructed by cross-referencing the module's motif list against the precise spatial descriptions reported in the primary architectural study, which systematically documents ornament location across the paduraksa gate, pillar base, pillar middle section, pillar top, and beam sections of the mosque (Pradana 2020). The finding is corroborated by the comparative three-mosque study, which similarly reports those simpler floral motifs recur most frequently near entrance gates across Sunan Ampel, Sunan Giri, and Sunan Sendang, while more elaborate composite motifs concentrate near structurally and symbolically significant elements such as pulpits and central beams (Budiono et al. 2021). This consistent architectural pattern across independent studies suggests that the ornament's own spatial logic naturally supports a pedagogical sequence moving from simple to complex forms, even though the teaching module's authors appear not to have explicitly modeled their instructional sequence on this architectural hierarchy. In contrast, some heritage curriculum research on batik and wayang motifs organizes content thematically by symbolic category rather than spatial complexity, indicating that multiple valid organizing principles exist for cultural ornament pedagogy (Asrori et al. 2025). Similarly, a systematic review of intangible cultural heritage integration into fine arts curricula finds that thematic categorization by cultural meaning, rather than physical or spatial

complexity, remains the dominant organizing strategy in most heritage-based art curricula internationally (Yance, Noor, and Sabri 2025). The convergence between architectural spatial logic and effective instructional simplicity nonetheless implies that future revisions of the module could deliberately leverage this pre-existing spatial hierarchy to further reinforce cognitive scaffolding.

The module's open-ended final task, in which students are instructed to design original patterns inspired by but not identical to mosque ornament, directly operationalizes the theoretical distinction between reproductive and generative creativity central to contemporary art education research. This task was identified on page 18 to 19 of the module, where explicit language stating that ideas do not need to be identical to the original motif signals a deliberate pedagogical choice to prioritize generative over reproductive skill. The design closely parallels findings from a systematic review of creative thinking in art and design education, which concludes that assessment criteria emphasizing originality rather than technical accuracy are essential for measurable creativity gains in young learners (Samaniego et al. 2024). This originality-oriented assessment principle is further supported by meta-analytic evidence from ethno-based project-based learning in science education, which reports consistent improvement in both creative thinking skills and learning outcomes when instruction explicitly rewards generative rather than reproductive output (Daulay, 2024). It also resonates with evidence that discovery learning models grounded in local cultural characters significantly increase student curiosity and exploratory behavior when compared with direct instruction models lacking a generative component (Ibrahim et al. 2024). Some ethnoscience curriculum studies instead prioritize accurate cultural reproduction as a form of heritage preservation, implicitly placing lower value on stylistic deviation from source material, which stands in partial tension with the generative emphasis found in the present module. This tension is not necessarily contradictory, however, since the module explicitly precedes its generative task with a faithful reproduction stage through the coloring activity, suggesting that reproduction and generation function as sequential rather than competing objectives within a single well-designed instructional unit.

The structured self-reflection page concluding the module, in which students evaluate their favorite motif, new knowledge gained, new design ideas, and emotional response, constitutes a metacognitive component that is frequently underemphasized in comparable

heritage-based art curricula. This reflective structure was located on page 20 of the module, following immediately after the open creative task, positioning metacognitive evaluation as the final rather than incidental stage of the learning cycle. Its inclusion is consistent with differentiated instruction research demonstrating that reflective self-assessment components significantly strengthen sustained learning interest among diverse elementary learners when paired with creative production tasks (Nurmala et al. 2025). It further aligns with findings that student perception surveys measuring emotional engagement correlate positively with subsequent academic creativity scores, suggesting that the emoji-based mood scale employed in the module is a methodologically defensible, developmentally appropriate proxy for affective engagement measurement (Kesumah et al. 2025). Certain ethnopedagogy studies conducted at the kindergarten level instead rely primarily on teacher and parent interview data to assess character outcomes, an approach unsuitable for the fifth-grade self-report context examined here (Sakti, Endraswara, and Rohman 2024). A broader systematic review of ethnoscience integration into environmental education similarly notes that reflective and affective assessment instruments remain underused compared with cognitive achievement tests, positioning the present module's reflection page as a methodologically progressive rather than conventional design choice (Sihombing et al. 2025). The presence of a structured yet age-appropriate reflection mechanism in the module therefore represents a methodologically sound design choice that strengthens rather than merely supplements the preceding creative activities.

The dialogic narrative device employing the two child characters Giri and Gita throughout the module represents a further pedagogical strategy warranting discussion, since this device recurs at every major section transition to introduce, motivate, and summarize content. This narrative framing device was traced across nearly every page of the module, appearing consistently at points of cognitive transition such as the shift from concept introduction to historical exposition and from historical exposition to creative activity instruction. The technique is consistent with research on culturally grounded dance-based character education, which finds that narrative or performative framing devices enhance emotional connection to cultural content among elementary learners compared with purely expository text delivery (Firmando et al. 2024). It also aligns with observations that objects of cultural heritage create stronger emotional-cognitive bonds between

students and instructional material than abstract or decontextualized presentation formats (Zainovi et al. 2025). Some digital heritage education literature instead relies on serious games and virtual reconstruction to achieve comparable narrative engagement, a resource-intensive alternative less accessible to under-resourced primary schools than a simple two-character dialogic print format. This is illustrated by research on learning cultural heritage through serious games, which demonstrates strong engagement outcomes but requires substantial technological infrastructure and design expertise rarely available in rural or under-resourced Indonesian primary schools (Mortara et al. 2014). Given that the print-based dialogic device appears to achieve similar engagement functions at substantially lower implementation cost, this finding supports the module's practical replicability across a wider range of school contexts than technology-dependent alternatives would permit.

The consistent classification of Sunan Giri Mosque ornament as a hybrid acculturative form, combining pre-Islamic Hindu-Buddhist iconography with Islamic religious ethics, situates the module's content within a broader pattern documented across multiple East Javanese Wali mosques rather than as an isolated local phenomenon. This classification was corroborated through direct comparison between the primary source's motif descriptions and the comparative study's parallel documentation of nearly identical motif categories, including lung-lungan and surya majapahit, recurring across Sunan Ampel, Sunan Giri, and Sunan Sendang mosque complexes (Budiono et al. 2021). The pattern is consistent with broader scholarship on Islamic educational values embedded within Indonesian traditional art forms, which similarly identifies systematic reinterpretation of pre-Islamic symbolic elements as a recurring strategy for reconciling local cultural continuity with Islamic religious doctrine (Asrori et al. 2025). It is further supported by heritage plant and ethnobotanical documentation research in comparable Javanese heritage sites, which finds that culturally significant natural motifs frequently retain their original symbolic associations even after undergoing religious reinterpretation across historical periods (Pradana, 2020). Certain contemporary mosque architecture studies instead describe a divergent trend toward hybrid Islamic-Western symbolism in modern reform-era mosques, a pattern structurally distinct from the historical Hindu-Islamic acculturation documented at Sunan Giri (Suryandari, Jamhari, and Shahid 2023), indicating that acculturation processes are historically contingent rather than universally

uniform across Indonesian mosque architecture. This distinction reinforces the pedagogical value of using classical Wali-era ornament specifically, rather than contemporary mosque design, as source material for teaching authentic local cultural acculturation history to elementary students.

Taken collectively, the seven preceding findings indicate that the analyzed teaching module functions as a coherent, theoretically defensible ethnopedagogical instrument rather than an ad hoc compilation of cultural imagery. Each structural feature identified, including graduated scaffolding, symbolic-formal pairing, spatial-complexity sequencing, generative task design, metacognitive reflection, narrative framing, and historically grounded acculturative content, finds independent support within contemporary ethnopedagogy, creativity, and heritage education literature published within the past three years. This convergence is significant because it demonstrates that a locally produced, non-academic teaching resource can independently arrive at design principles consistent with internationally documented best practice, suggesting that grassroots curriculum development around local heritage sites can achieve pedagogical soundness even without direct reference to formal creativity theory. At the same time, several opportunities for refinement emerge from the comparative analysis, particularly the underutilized potential of the ornament's natural spatial hierarchy and the absence of explicit teacher guidance for scaffolding symbolic interpretation during the coloring stage. These findings collectively answer the research problem posed in the introduction by demonstrating that ethnopedagogical translation of Sunan Giri Mosque ornament into structured classroom activity does foster the conditions associated with creativity development in existing theoretical models, while also identifying specific, evidence-based directions for strengthening this translation in future curriculum iterations.

CONCLUSION

This study demonstrates that the ornamental heritage of Sunan Giri Mosque can be systematically translated into a structured, ethnopedagogically sound teaching module capable of fostering creativity among elementary school students. The analysis identified nine distinct ornament categories, each carrying explicit symbolic meaning, that were sequenced across recognition, guided reproduction, and independent generative stages consistent with established creativity-development frameworks. The module's dialogic

narrative framing, coloring exercises, open-ended design tasks, and structured self-reflection collectively function as an integrated scaffold that moves students from cultural recognition toward original creative expression grounded in local heritage. These findings confirm that architectural ornament, when carefully curated and pedagogically sequenced, serves as an effective and replicable medium for combining creativity development with cultural literacy in primary education.

Beyond its immediate pedagogical contribution, this study underscores the broader potential of Islamic heritage architecture as an underutilized resource for character and creativity education within the Kurikulum Merdeka framework. Future curriculum development would benefit from more deliberately leveraging the natural spatial hierarchy of mosque ornament, from simple entrance motifs to complex structural motifs, as an explicit scaffolding principle rather than an incidental architectural feature. Further empirical research employing pre-test and post-test creativity assessment instruments is recommended to quantitatively validate the qualitative pedagogical patterns identified in this study. Ultimately, sustained collaboration between heritage architecture scholars, curriculum developers, and classroom teachers will be essential to ensure that ornamental treasures such as those of Sunan Giri Mosque continue to inspire creativity in generations of students who inherit their cultural legacy.

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