

# Embodied pedagogy and ecological ethics: Internalizing environmental values through the Pakarena Anida dance in South Sulawesi

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## Abstract

Global ecological crises demand sustainability education that integrates cultural and ecological values beyond formal and Western-oriented frameworks. Traditional performing arts offer holistic pedagogical resources through embodied, symbolic, and participatory practices, yet their potential remains underexplored in sustainability discourses. In Indonesia, the Pakarena Anida Dance of South Sulawesi exemplifies how ritual gestures, ornate costumes, and narrative symbolism function as cultural texts transmitting ecological ethics and community values. However, limited scholarship has examined how female dancers operate as custodians of both cultural heritage and environmental responsibility. This study employs a descriptive qualitative design, drawing on anthropology, semiotics, and cultural studies to analyse the symbolic representation of female dancers in South Sulawesi traditional performances. Multi-sited fieldwork was conducted in Makassar City, Wajo Regency, and Toraja Regency, involving 29 purposively selected informants including cultural leaders, senior dancers, troupe members, and audiences. Data were collected through performance observation, semi-structured interviews, and documentation of manuscripts and visual records. Analysis followed Miles and Huberman's interactive model, supported by thematic and interpretive strategies. Findings reveal three key insights. First, Pakarena Anida embodies conservation values through symbolic movements such as bowing and circular formations that signify humility and ecological balance. Second, the dance functions as informal education, with rehearsals and performances serving as "schools without walls" where intergenerational ecological and moral wisdom is transmitted. Third, costumes, music, and ritualized gestures operate as cultural codes that internalize local values, reinforcing identity, humility, and responsibility across generations.

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## 1. Introduction

Global ecological crises including climate change and biodiversity loss have prompted scholars to rethink sustainability education in ways that integrate cultural and ecological values. While the urgency of embedding environmental ethics into education is widely acknowledged, dominant approaches continue to privilege formal schooling and Western pedagogical frameworks, which restrict opportunities for indigenous and community-based practices to contribute their epistemologies (Caraballo & Souto-Manning, 2017; Love, 2022). Alternative perspectives emphasize that transformative sustainability learning must engage the cognitive, affective, and embodied dimensions of education often framed as learning through the "head, hands, and heart" (Sipos et al., 2008). In this context, traditional performing arts emerge as significant yet underexplored pedagogical resources. As embodied, symbolic, and participatory practices, they provide holistic modes of knowledge transmission that convey ecological wisdom, moral orientation, and cultural identity (Aartun et al., 2022; Niederhauser et al., 2024; Siringo-ringo et al., 2022). These insights highlight the potential of arts-based and community-centered pedagogies to complement formal education and to reframe sustainability learning as culturally grounded, ethically responsive, and socially inclusive (Jones et al., 2022; Sclater, 2018).

Within Indonesia, dance traditions hold profound cultural significance as they function not merely as entertainment but as cultural texts imbued with layers of moral, ecological, and social meaning (Asyrafunnisa, 2021; Soedarsono, 2001). Among these, the Pakarena Anida Dance of South Sulawesi exemplifies how ritualized gestures, ornate costumes, and narrative symbolism operate as pedagogical tools that communicate conservation values and ethical principles integral to community life (Fawziah et al., 2020; Khalik et al., 2022;

Pramana & Nugrahaeni, 2019). Historically, Pakarena was performed to honour kings and ancestral spirits, thereby establishing its sacred role within Makassar's society (Primasari & Prihatini, 2019). Over time, however, it has evolved into a dynamic medium for sustaining community identity and facilitating cultural diplomacy, performed both locally and on international stages (Syahrir & Alimuddin, 2024). The dance's persistent symbolism such as bowing to signify humility, circular formations to embody ecological balance, and costumes reflecting dignity and purity illustrates its role as a living curriculum of ecological ethics and cultural resilience (Asyrafunnisa, 2021; Pramana & Nugrahaeni, 2019). In this way, the Pakarena Anida Dance exemplifies how traditional performance arts can bridge the domains of tradition and modernity, morality and ecology, thereby functioning as transformative pedagogy for cultural sustainability.

Despite its cultural significance, limited scholarly attention has been devoted to examining how the symbolic role of female dancers in South Sulawesi's traditional performances contributes to both environmental and cultural sustainability. Existing research has predominantly approached Indonesian dance through aesthetic or historical lenses (Pramana & Nugrahaeni, 2019; Primasari & Prihatini, 2019), with comparatively little focus on its pedagogical and ecological functions. Yet studies highlight that ritualised gestures and symbolism in the Pakarena Anida Dance articulate ecological balance and cultural values (Asyrafunnisa, 2021; Khalik et al., 2022), positioning performance as an informal educational arena that transmits conservation ethics across generations (Rachmadian et al., 2021; Zul Hilmi et al., 2024). Within this process, female dancers emerge as central custodians of intangible heritage, simultaneously embodying and transmitting ecological and cultural wisdom to their communities (Ahmad et al., 2024; Prasetyo et al., 2024). Their agency extends beyond performance into the social and pedagogical domain, where they act as cultural educators who sustain moral frameworks, intergenerational knowledge, and environmental ethics. Community based initiatives, such as training programmed in indigenous dance traditions (Rabani et al., 2024), further underscore how women's participation reinforces cultural resilience and ecological stewardship. Collectively, this indicates a critical gap in the literature: while much attention has been given to form, function, and history, the transformative role of female dancers as educators and ecological custodians remains underexplored, despite its significance for sustaining both cultural identity and environmental ethics.

To address this gap, this study investigates the symbolic representation of female dancers in South Sulawesi traditional dances, with a focus on the Pakarena Anida Dance. Employing a descriptive qualitative design, the research integrates anthropology, semiotics, and cultural studies to analyses dance as both an artistic construct and a medium of representation. The study draws on multi-sited fieldwork conducted across Makassar City, Wajo Regency, and Toraja Regency, involving 29 purposively selected informants including cultural leaders, senior dancers, troupe members, and audiences. Data were gathered through performance observations, semi-structured interviews, and documentation of manuscripts, archival records, and visual materials. The analysis followed Miles and Huberman's (1994) interactive model, supported by thematic, textual, and interpretive strategies to uncover cultural identity, ecological values, and symbolic meanings.

By situating Pakarena Anida within broader discourses of cultural sustainability and eco-pedagogy, this study makes two contributions. Theoretically, it extends Hall's (1997) theory of representation to demonstrate how symbolic practices within traditional dance actively construct ecological and ethical meanings. Practically, it highlights the potential of indigenous performing arts as informal educational platforms for conservation, thereby informing both cultural policy and education for sustainable development (ESD). Based on these considerations, this study addresses the following research questions:

- RQ1 : How are conservation values and ecological responsibilities represented through the symbolic practices of the Pakarena Anida Dance?
- RQ2 : In what ways does the dance function as a form of informal education and community pedagogy for transmitting cultural and environmental values?
- RQ3 : How are local values internalized and sustained through the costumes, music, and ritualized gestures performed by female dancers?

## 2. Method

This study employed a descriptive qualitative design to explore the symbolic representation of female dancers in South Sulawesi traditional dances. A qualitative descriptive approach was selected as it enables the collection of narratives, words, and visual materials that convey rich contextual meanings and allows direct researcher participant interaction for in-depth cultural exploration (Olaghere et al., 2023). In line with (Soedarsono, 2001) argument that Indonesian performing arts research requires interdisciplinary perspectives, this study drew upon anthropology, semiotics, and cultural studies to examine dance as a cultural construct articulated through movement, costumes, and properties, and representation as the process by which individuals or groups are given meaning through artistic forms. Research procedures involved problem identification, preliminary studies, securing permissions, observation of performances, selection and interviews of informants, and documentation of field data. The fieldwork was conducted across Makassar City (Pakarena dance), Wajo Regency (Patennung dance), and Toraja Regency (Pagellu dance), with 29 purposively selected

informants (aged 17–75) comprising cultural leaders, senior dancers, troupe members, community figures, and audiences. Data sources included primary data from observations, interviews, and direct interactions, and secondary data from manuscripts (e.g., Lontarak, Ada Pappaseng), biographies, academic works, and archival documents. Data collection combined literature review, observation of performances and rehearsals (June 2024–July 2025), semi-structured interviews (in-person and online), and documentation through photographs, video recordings, and field notes. Analysis followed Miles and (Miles & Huberman, 1994) interactive model involving data reduction, display, and conclusion drawing, supported by thematic, textual, contextual, and interpretive strategies to uncover cultural identity, ecological values, and the symbolic meanings of dance performance.

### 3. Results and Discussion

#### 3.1. Result

##### 3.1.1. Representation of Conservation Values through Dance

The Pakarena Anida Dance embodies a strong ecological and moral message, positioning art not only as entertainment but also as a cultural medium for conservation. Observations of performance rituals revealed that movements symbolizing harmony between humans and nature were consistently highlighted, especially gestures of bowing and circular motion, which signify balance in the cosmic order. A senior dancer emphasized:

*"Pakarena was once performed as a tribute to kings, but today it is dedicated to honouring guests and high-ranking officials in South Sulawesi. Beyond its aesthetics, the dance conveys moral messages, including ancestral teachings from To Manurung on love for nature and the responsibility to safeguard the environment"* (Interview with Evie, Makassar, 2024).

Such symbolic representations reinforce the conservation values embedded in the Makassar community's ancestral traditions, where respect for nature is regarded as a sacred duty. Both local ritual performances and international showcases underscore these values as ethical obligations transmitted across generations. However, the continuity of this heritage faces challenges from globalization and external cultural influences. Scholars argue that cultural and art centers can provide effective platforms for safeguarding traditions by facilitating artistic expression, education, and community engagement (Amalia & Agustin, 2022). Furthermore, training initiatives for children and adolescents are essential for sustaining performance practices, as they contribute to cultural transmission while strengthening youth identity and character (Zulkifli et al., 2023).

##### 3.1.2. Dance as Informal Education and Community Pedagogy

The Pakarena Anida Dance also functions as an informal educational practice through which cultural knowledge and environmental values are transmitted across generations. Observations during rehearsals and festivals showed that younger dancers did not merely acquire technical movements but also internalized narratives of ancestral origins, ecological ethics, and collective responsibilities embedded in the dance. As Serang Dakko, a cultural leader, explained:

*"Children participating in rehearsals do not only learn movements; they also hear stories of the ancestors, about safeguarding the sea and protecting the forests. This dance becomes a school without classrooms"* (Interview with Serang Dakko, Makassar, 2024).

Such intergenerational learning underscores the role of women dancers as custodians of cultural memory, whose performances and narratives simultaneously educate audiences and transmit wisdom to the younger generation. This resonates with findings that Pakarena functions not only as entertainment but as an effective medium for environmental awareness and cultural preservation, facilitated through community interaction and informal education spaces such as art studios, traditional houses, and public gatherings (Asyrafunnisa, 2021). Audience testimonies further revealed that witnessing Pakarena performances often evoked reflection on individual responsibility for sustaining both cultural heritage and the natural environment.

##### 3.1.3. Internalization of Local Values and Cultural Sustainability

The findings further demonstrate how local wisdom is internalized through the symbolic meanings embodied in Pakarena performances. Costumes such as the baju bodo and traditional ornaments transcend their aesthetic function, signifying dignity, purity, and reverence for ancestors. Their repeated use reinforces collective identity and cultivates values of humility, harmony, and responsibility within the community. As Rahma, a senior Toraja dancer, explained:

*"When we see dancers wearing traditional attire, it reminds us of our parents' message: dressing properly is about preserving dignity. Just like protecting nature, everything must be done with respect"* (Interview with Rahma, Toraja, 2024).

Through such practices, Pakarena becomes a form of lived pedagogy in which symbolic expression serves as a medium of reflection and moral formation. The internalization of values occurs not only among dancers but also among audiences, who are prompted to reconsider their responsibilities towards both cultural preservation and ecological sustainability (Khalik et al., 2022). This is consistent with previous research highlighting how traditional art forms transmit environmental ethics by integrating natural and cultural elements into community performances (Dey & Sinha, 2025; Gurholt, 2014; Liu & Li, 2019). In this way, the Pakarena Anida Dance functions as more than a cultural performance; it is a vehicle for sustaining ecological awareness and reinforcing local values across generations.

## 3.2. Discussion

### 3.2.1. Representation of Conservation Values through Dance

The findings of this study substantiate Hall's (1997) assertion that representation is an active process of meaning-making realized through symbols, narratives, and practices. In the context of the Pakarena Anida Dance, movements, costumes, and performance settings embody ecological responsibility, functioning as cultural texts that communicate values of harmony between humans and nature (Fawziah et al., 2020; Khalik et al., 2022). Symbolic gestures particularly bowing as a metaphor for humility and circular formations representing the cyclical rhythms of nature illustrate how embodied performance constructs a dialogue with the environment (Pramana & Nugrahaeni, 2019). This aligns with Soedarsono's (2001) contention that Indonesian traditional performances operate as cultural artefacts with inherent ethical discourses. Accordingly, the conservation messages embedded in the Pakarena Anida Dance are not merely aesthetic but profoundly ideological, reinforcing collective awareness of ecological responsibility (Fawziah et al., 2020; Henny, 2022).

In this sense, art functions as an ecological pedagogy, transforming performance into a medium for sustainability education. Prior research on cultural performance confirms the role of traditional arts as vehicles for environmental awareness and ethical formation (Khalik et al., 2022; Pramana & Nugrahaeni, 2019). This study extends such perspectives by demonstrating how female dancers, through their embodied practices, actively transmit ecological values, thereby positioning women not only as performers but also as custodians of cultural and environmental legacies (Fawziah et al., 2020; Okwir, 2025). Such enactments highlight the pedagogical potency of traditional performance in bridging cultural heritage with contemporary ecological discourse.

These findings resonate with wider debates in the environmental humanities, where traditional cultural expressions are increasingly recognised as critical resources for fostering ecological consciousness and resilience (Thompson et al., 2023). The Pakarena Anida Dance demonstrates how performance functions simultaneously as cultural preservation and environmental pedagogy, contributing to what scholars' term "sustainability education through art" (Okwir, 2025; Pramana & Nugrahaeni, 2019). By embedding ecological ethics within movement, costume, and ritual, the dance illustrates how indigenous epistemologies provide alternative pathways for addressing global ecological crises (Khalik et al., 2022). Moreover, the central role of female dancers expands current discourse by foregrounding gendered custodianship of both culture and environment, aligning with arguments that sustainable futures require inclusive recognition of women's agency in ecological stewardship (Fawziah et al., 2020). In this way, the Pakarena Anida Dance not only enriches Indonesian cultural identity but also contributes to global conversations on how local wisdom and performative traditions can advance sustainable development and environmental ethics.

### 3.2.2. Dance as Informal Education and Community Pedagogy

The research affirms the significance of informal education embedded within cultural practices, particularly as demonstrated in the Pakarena Anida rehearsals and performances. These spaces function as "schools without walls," where ancestral narratives, ecological wisdom, and moral values are transmitted intergenerationally through embodied learning. Such findings align with Smith's (2020) perspective on the transformative power of informal education, underscoring the value of community driven pedagogical environments that operate outside institutional frameworks. Unlike formal schooling, these rehearsals integrate artistic practice with moral guidance, allowing participants to engage in holistic learning that unites technical, ethical, and ecological knowledge.

Central to this process is the interplay between storytelling and performance, which together foster a multisensory and participatory form of learning. As (Batubara, 2024) emphasizes, cultural practices such as traditional dance encourage learners to absorb values through lived experience rather than abstract instruction. In the Pakarena Anida context, rehearsals and performances transmit wisdom implicitly embedded within the gestures, narratives, and rituals, reinforcing both cultural identity and ecological awareness. This resonates with Mahmudah et al. (2021), who demonstrate that character education rooted in local traditions fosters not only technical skill acquisition but also ethical development.

The role of women dancers emerges as especially significant. As cultural custodians, they act simultaneously as performers, teachers, and mentors, guiding younger generations in both artistic mastery and moral orientation. Their pedagogical role extends beyond aesthetic performance, ensuring the preservation and renewal of cultural heritage (Batubara, 2024). This finding supports (Sholeh et al., 2024), who argue that local cultural practices are integral to character education, particularly in contemporary contexts shaped by globalization and social change. Similarly, Egorov et al. (2019) note that folk dance traditions function as key sites of cultural reproduction, transmitting tacit and explicit knowledge in ways that sustain community identity.

The intergenerational dialogue facilitated through these practices underscores the adaptive capacity of informal education. Rather than remaining static, the Pakarena Anida rehearsals enable cultural wisdom to evolve alongside contemporary needs, ensuring that ancestral teachings remain relevant for younger audiences. This dynamic echo (Mahmudah et al., 2021) argument that traditional performance functions as a living pedagogy capable of instilling resilience and ecological consciousness. In this way, informal education within the Pakarena Anida dance operates not only as cultural preservation but also as an innovative mode of character formation that bridges historical continuity with modern challenges (Syahrir & Alimuddin, 2024).

### 3.2.3. Internalization of Local Values and Cultural Sustainability

The process of internalization identified in the findings demonstrates how local values are preserved and re-embedded through repetitive symbolic practices. Costumes, music, and ritualized gestures function as cultural codes, reinforcing identity, humility, and ecological responsibility. This mechanism aligns with Stuart Hall's theory of representation, which argues that symbols do not passively mirror reality but actively construct social meanings, shaping collective consciousness (Henny, 2022; Wu et al., 2022). In the context of Pakarena Anida, each enactment is both a continuity of past traditions and a creative re-embedding of values into contemporary life, thereby producing a dynamic interplay between cultural preservation and social innovation (Lichtenberg et al., 2022).

Costumes operate as visual markers of cultural identity, embodying ethical dispositions toward humility and respect for both community and environment. Their continual use and re-creation evoke collective memory while fostering belonging (Fu et al., 2025). Similarly, music functions as an auditory repository of cultural narratives, transmitting ecological and social ethics across generations. It is not merely an aesthetic element but a symbolic soundscape connecting audiences with spiritual and environmental dimensions of community life (Martínez-Rodríguez et al., 2022; Shen et al., 2022). Ritualized gestures extend this pedagogical force, embedding intangible values into bodily practice and thereby transforming each performance into a living curriculum where humility, ecological responsibility, and identity are enacted (Song et al., 2019; Wu et al., 2022).

The cumulative repetition of these practices constitutes what may be termed a symbolic pedagogy, where participation in performance continuously reaffirms shared moral visions. This resonates strongly with UNESCO's (2018) assertion that intangible cultural heritage fosters sustainable development by nurturing ethical orientations toward society and the natural environment. By translating abstract principles into accessible cultural forms such as visual symbols, aesthetic movements, and ritualized gestures Pakarena Anida ensures that ethical messages remain relevant to contemporary audiences (Shen et al., 2022).

These mechanisms further correspond with (Nieveen, 1999) criteria of effective educational practices: relevance, sustainability, and cultural validity. Performances such as Pakarena Anida represent more than artistic expression; they constitute an immersive pedagogy rooted in cultural authenticity. By embedding ecological and cultural values into embodied practices, dance emerges as a living curriculum that reinforces intergenerational knowledge while preparing communities to confront modern challenges. Such performative repetition creates resilience against cultural erosion, allowing local values to adapt flexibly while sustaining their ethical core (Yang et al., 2022).

The internalization of values through costumes, music, and ritualized gestures not only preserves cultural heritage but also ensures its continued vitality as a framework for sustainable development. The symbols function as active agents of meaning-making, mediating between tradition and modernity while cultivating ecological responsibility and social solidarity. This cultural pedagogy exemplifies how intangible heritage can serve as both a repository of collective memory and a dynamic resource for ethical and sustainable futures.

### 3.2.4. Implications

The findings contribute to three areas of scholarly debate. First, they advance representation theory by situating traditional dance as a site where ecological and ethical meanings are continually constructed and reinterpreted. Second, they extend informal education discourse by showing how embodied practices, rituals, and storytelling serve as pedagogical resources outside formal schooling. Third, they contribute to cultural sustainability studies by evidencing how intangible heritage mediates value transmission and identity reinforcement in the face of globalization.

For cultural practitioners and policymakers, the Pakarena Anida Dance highlights the potential of traditional performances as living curricula for conservation education. Embedding cultural practices into community-based and school-based programs may enhance education for sustainable development (ESD). For cultural activists, strengthening women's roles as dancers, teachers, and cultural custodians is crucial for ensuring continuity of both artistic practices and ecological ethics. Finally, for international cultural platforms, this study affirms the relevance of local wisdom as a resource for global sustainability discourses.

### 3.2.5. Limitations and Future Research

This study was limited to qualitative data from observations, interviews, and documentation within selected communities in South Sulawesi. Future research may incorporate comparative ethnographic studies across regions or adopt mixed methods to examine the broader impact of traditional dances on ecological awareness. Expanding the analysis to audiences and youth engagement would also provide deeper insights into how cultural performances foster long-term behavioral change.

## 4. Conclusion

This study demonstrates that the Pakarena Anida Dance is more than a traditional performance; it is a dynamic medium of cultural representation, informal education, and value internalization. The analysis revealed three interrelated findings. First, the dance conveys messages of conservation and ecological responsibility through symbolic movements and ritualized gestures. Second, it serves as a form of informal education, enabling intergenerational transmission of cultural memory, ecological ethics, and moral teachings within the community. Third, the performance provides a process of internalization, where costumes, narratives, and embodied practices reinforce local values and collective identity.

By applying Stuart Hall's representation theory alongside perspectives on informal education and cultural sustainability, this study expands the understanding of how intangible heritage functions as both art and pedagogy. It further illustrates the role of women dancers as custodians of ecological and cultural wisdom, highlighting the gendered dimension of cultural preservation.

## Author Contributions

We can confirm that all four authors agree to be accountable for all aspects of this work. Andi Dwi Resqi Pramana was directly involved in the field, collecting data and gathering results from interviews and verbal data from informants. Tri Marheni Pudji Astuti was involved in formulating the theory of the research problem, as well as analyzing and interpreting the data obtained from the field. Malarsih was directly involved in selecting which data to include in the presentation of the article, as well as creating the concept of mapping the theoretical framework. Syarul Syah Sinaga was directly involved in reviewing the performance results and editing the final version. All authors have equal contributions to the paper. All the authors have read and approved the final manuscript.

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