



Community-Based Music Creation as Learning Innovation: The Kluai Tanao Si Song Project for Cultural Sustainability in Thailand

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Abstract- This study presents the *Kluai Tanao Si Song Project* as an innovative model of community-based learning integrating music composition, local knowledge, and cultural sustainability in Suan Phueng District, Ratchaburi Province, Thailand. *Kluai Tanao Si*—a unique local banana variety—represents both biological and cultural heritage, symbolizing the community's deep connection with nature through agriculture, cuisine, and folk traditions. The project aimed to preserve and revitalize this local wisdom by transforming it into a creative educational process.

Using a Participatory Action Research (PAR) framework, teachers, students, and community members collaboratively explored the cultural knowledge surrounding *Kluai Tanao Si* and reinterpreted it through songwriting, performance, and digital media. The resulting composition functioned as both an aesthetic artifact and a pedagogical tool, demonstrating how music can serve as a living knowledge system that captures, transmits, and revitalizes indigenous wisdom.

The project drew upon multiple theoretical perspectives—Aesthetics of Music (Hanslick; Scruton), Music for Learning (Swanwick; Campbell), Experiential and Transformative Learning (Kolb; Mezirow), and Knowledge Management (Davenport & Prusak)—to explain how musical experience enhances perception, memory, co-creation, and knowledge sharing.

Findings revealed that the project fostered students' creativity, communication, collaboration, and critical thinking while promoting pride in local identity, social cohesion, and awareness of biodiversity. Aligned with UNESCO's frameworks of Education for Sustainable Development (ESD) and the 2003 Convention for the Safeguarding of the Intangible Cultural Heritage, it also supports the Royal Plant Genetic Conservation Project initiated by Her Royal Highness Princess Maha Chakri Sirindhorn.

Overall, the *Kluai Tanao Si Song Project* exemplifies how arts-integrated, community-based pedagogy can unite creativity, culture, and sustainability to advance inclusive and meaningful education.

Keywords: Community-Based Learning, Music Education, Cultural Sustainability, Participatory Action Research, Intangible Cultural Heritage.

I. INTRODUCTION

Suan Phueng District in Ratchaburi Province, western Thailand, represents a microcosm of cultural and ecological diversity. Situated along the Thai-Myanmar border, it is home to Thai, Karen, and Mon communities whose coexistence has produced a rich fusion of traditions and artistic expressions. Among its distinctive cultural symbols is *Kluai Tanao Si*—a local banana variety intertwined with daily life, cuisine, and ritual practice, reflecting the community's harmony with nature.

However, rapid modernization and globalization have disrupted the transmission of traditional wisdom once preserved through oral traditions, crafts, and folk songs. This challenge raises a vital educational question: how can learning reconnect new generations with their cultural roots while nurturing creativity and sustainability?

The **Kluai Tanao Si Song Project** addresses this through a community-based educational approach integrating music composition, local knowledge, and participatory learning. Using the **Participatory Action Research (PAR)** framework, teachers, students, and community members co-created a song that transforms local narratives into a living learning resource.

The project positions music as both artistic expression and pedagogical tool, linking cultural identity with 21st-century competencies. It exemplifies how education can merge **culture, creativity, and sustainability**, aligning with UNESCO's **Education for Sustainable Development (ESD)** and **Intangible Cultural Heritage (ICH)** frameworks to transform heritage into active, lived learning.

II. LITERATURE REVIEW/STUDY SITE

2.1 Overview of Related Literature

Scholars have long explored the nexus of music, education, and culture, emphasizing music's dual function as both artistic expression and pedagogical tool. Merriam (1964) defined music as a social and



cultural “living knowledge system,” while Nettl (2005) viewed it as a mirror of human behavior and social structure. In music education, Swanwick (1999) described musical understanding as evolving through creative engagement, and Campbell (2004) emphasized multicultural perspectives that integrate community sound-worlds into learning. Collectively, these studies affirm that music cultivates creativity, communication, and cultural identity—key competencies in holistic education.

2.2 Arts-Based and Community-Based Learning

Arts-based pedagogy connects creative expression with experiential and transformative learning. Kolb’s (1984) experiential cycle—experience, reflection, conceptualization, and experimentation—illustrates how learners internalize knowledge through active engagement, while Mezirow (1991) highlights perspective transformation through critical reflection. Reason and Bradbury (2001) further demonstrated that Participatory Action Research (PAR) enables communities to co-create and own their learning processes. Complementing this, Amara Pongsapich (2012) and Rice (2014) found that embedding local cultural practices in education enhances intergenerational knowledge transfer and social cohesion. Such participatory approaches align with UNESCO’s Education for Sustainable Development (ESD) and Intangible Cultural Heritage (ICH) frameworks, which promote the safeguarding of living traditions through practice.

2.3 Music, Culture, and Sustainability Education

Within sustainability discourse, Scruton (1997) and Hanslick (1986/1854) underscored how musical aesthetics engage perception and emotion, fostering deep cultural connection. Davenport and Prusak (1998) linked this to knowledge management, wherein tacit community wisdom becomes explicit through creative production—songs, performances, and learning media. In Thailand, arts-based initiatives under the Royal Plant Genetic Conservation Project (RSPG) integrate biodiversity preservation with cultural revitalization (Office of Bio-Based Economy Development, 2017), demonstrating how creative learning nurtures ecological awareness and local pride.

2.4 Study Site: Suan Phueng District, Ratchaburi Province

This study took place in Suan Phueng District, Ratchaburi Province—an ethnically diverse area inhabited by Thai, Karen, and Mon communities. The district’s cultural and agricultural identity centers on *Kluai Tanao Si*, a banana variety embodying both biological and cultural value. Schools and community learning centers in Suan Phueng participated as collaborative sites, where teachers, students, and local knowledge holders co-created the *Kluai Tanao Si Song* and related digital materials. This context exemplifies how community-based, arts-integrated education can sustain local identity while advancing innovative, sustainable learning.

III. MATERIALS AND METHODS/METHODOLOGY

3.1 Research Design and Rationale

This study employed a **Participatory Action Research (PAR)** framework to examine how community-based music creation can enhance cultural learning, knowledge transmission, and sustainability awareness. PAR emphasizes collaboration, reflection, and transformation through iterative cycles of planning, action, observation, and reflection (Chambers, 1997). The design aligns with **Education for Sustainable Development (ESD)** and **Intangible Cultural Heritage (ICH)** principles (UNESCO, 2003), promoting participation and intergenerational knowledge exchange. Grounded in arts-based inquiry, the approach integrates **experiential learning** (Kolb, 1984), **transformative learning** (Mezirow, 1991), and **knowledge management** (Davenport & Prusak, 1998), positioning music as both a pedagogical process and a vehicle for knowledge preservation.

3.2 Research Site and Participants

The research was conducted in **Suan Phueng District**, Ratchaburi Province, Thailand—an ethnically diverse area where Thai, Karen, and Mon communities coexist and share rich agricultural and cultural traditions centered on *Kluai Tanao Si*, a banana variety of local heritage significance. Using purposive sampling, 180 participants were involved: 150 students from five schools, 10 teachers as facilitators, and 20 community knowledge holders including farmers, elders, and artisans. All participants provided informed consent and engaged voluntarily.



3.3 Data Collection and Analysis

Multiple qualitative tools were used: semi-structured interviews, participant observation, collaborative music workshops, and reflective journals. Data were triangulated and analyzed thematically following the PAR cycle to identify patterns in **cultural transmission**, **learner engagement**, and **transformative learning**. Analysis progressed through descriptive, interpretive, and reflective levels, with **member checking** ensuring contextual accuracy.

3.4 Implementation and Ethics

The project unfolded through four adaptive phases—exploration, action, observation, and reflection—enabling co-creation and continual refinement. Ethical integrity was upheld through transparency, voluntary participation, and respect for community intellectual property. Trustworthiness was reinforced through triangulation, member validation, thick description, and an audit trail (Lincoln & Guba, 1985).

In summary, this participatory framework demonstrates how **music-making** can function simultaneously as research methodology, pedagogical innovation, and a sustainable mechanism for cultural preservation—advancing ICETL 2025's goals of innovation, inclusion, and sustainability in education.

IV. RESULTS AND DISCUSSION

4.1 Results

4.1.1 Music as a Living Knowledge System

The *Kluai Tanao Si Song Project* revealed that music functions not merely as an aesthetic artifact but as a *living knowledge system*—a dynamic vehicle through which community wisdom is preserved, transmitted, and transformed. Within this framework, the act of songwriting became both a research method and a pedagogical tool. Local narratives surrounding the *Kluai Tanao Si* banana—its cultivation, culinary uses, and symbolic meanings—were reinterpreted into melody, rhythm, and verse.

In this process, tacit community knowledge was converted into explicit, performative knowledge. Each musical phrase embodied fragments of lived experience: the rhythm of agricultural work, the lyrical imagery of food rituals, and the tonal inflections of local speech. Through repeated performances, these musical forms continued to circulate, ensuring that the knowledge did not remain static in documentation but lived through practice and reinterpretation.

This finding confirms Merriam's (1964) and Nettl's (2005) propositions that ethnomusicology concerns "people making knowledge through music." The project thus established music as both a *repository* and a *transmitter* of community knowledge—a cultural archive that sings, remembers, and evolves.

4.1.2 Integration of Music into the School Curriculum

A major accomplishment of the project was the successful integration of the *Kluai Tanao Si Song* into school curricula across six participating institutions. Teachers recontextualized the song as a *transdisciplinary learning tool*, bridging arts, sciences, language, and local studies.

Students engaged more deeply when the lesson content was sung, performed, or narrated through the song. Teachers reported increased attentiveness, higher retention, and a deeper emotional connection—affirming Swanwick's (1999) argument that musical engagement intertwines cognition, emotion, and social participation in learning.

Table 1: Interdisciplinary Learning Integration Framework of the "Kluai Tanao Si Song" Project

Subject Area	Pedagogical Integration	Learning Outcomes
Art & Music	Singing, analyzing rhythm and melodic structure	Understanding Thai modal systems, rhythm, and expressive aesthetics
Science & Health	Exploring plant biology and nutrition through lyrics	Linking biodiversity knowledge with cultural practices
Language & Literacy	Writing new verses and reflections	Enhancing creative writing and phonetic awareness
Social Studies	Discussing local livelihoods and identity	Fostering community pride and cultural empathy

4.1.3 Development of 21st-Century Competencies



The participatory structure of the project supported the development of key twenty-first century skills. Collaboration was strengthened through joint songwriting and ensemble practice, which required shared decision making and negotiation of musical ideas. Creativity emerged as learners reinterpreted traditional motifs and explored new arrangements. Communication improved as students conveyed cultural narratives through performance, which enhanced their fluency and confidence. Critical thinking was fostered through structured reflection sessions that prompted students to examine themes of modernity, heritage, and sustainability.

These competencies extended beyond the music classroom—students demonstrated improved teamwork and creativity in other subjects and community projects. Kolb's (1984) experiential learning cycle was clearly reflected as learners moved from *concrete experience* to *active experimentation* through performance and reflection.

4.1.4 Cross-Age Participation and Community-Based Learning

Perhaps the most transformative outcome was the emergence of *intergenerational learning communities*. Elders, teachers, and students collaboratively created and performed the song. Elders transmitted oral histories and cultivation practices; teachers scaffolded conceptual learning; and students brought digital skills and modern aesthetics into the creative process.

This reciprocal learning cycle blurred the boundary between formal and informal education. Knowledge flowed multidirectionally—elders learning from children's digital production, children absorbing elders' wisdom, and teachers facilitating shared interpretation. As Mezirow (1991) posits, such dialogical encounters catalyze *transformative learning*, enabling participants to reconstruct perspectives about culture, identity, and environment.

4.2 Discussion

4.2.1 Music as Knowledge Management and Educational Transformation

The project demonstrated that community-based music-making can operate as a system of *knowledge management* (Davenport & Prusak, 1998). Through the musical process, tacit cultural knowledge was *captured* (via fieldwork and interviews), *codified* (through lyrics, notation, and media), *shared* (via teaching and performance), and *internalized* (through repeated practice).

This cyclical flow—**TA** → **EX** → **CO** → **IN**—converted indigenous wisdom into educational resources and sustainable pedagogical content. Beyond preservation, the process transformed the structure of teaching itself. Learning shifted from teacher-centered transmission to learner-centered co-creation. Students became *co-producers of knowledge*, embodying the roles of researcher, artist, and cultural mediator. The making of music thus became a form of "living pedagogy," where knowing, feeling, and creating intertwined seamlessly.

4.2.2 Co-Learning, Student Agency, and Cultural Empathy

Pedagogically, the *Kluai Tanao Si Song Project* fostered a triadic learning relationship among students, teachers, and community members. The participatory process enacted Vygotsky's (1978) *social constructivism* and Wenger's (1998) *community of practice*, transforming classrooms into spaces of co-learning and shared ownership. Students experienced heightened *agency*—selecting melodic motifs, composing verses, and organizing performances. This autonomy cultivated self-efficacy (Bandura, 1997) and emotional investment in their cultural heritage. At the same time, learners developed *cultural empathy* (Bennett, 2004) through direct engagement with the lived meanings of the song. By embodying community stories in sound, students experienced heritage as an affective reality rather than a distant subject, bridging emotion and understanding.

4.2.3 Alignment with ESD and UNESCO ICH Frameworks

The project's outcomes strongly resonate with UNESCO's frameworks on *Education for Sustainable Development (ESD)* and *Intangible Cultural Heritage (ICH, 2003)*. Cognitive Dimension (Knowledge) Students learned about biodiversity, agriculture, and ecology through song-based inquiry. Socio-Emotional Dimension (Values) Musical participation nurtured pride, empathy, and respect for local wisdom. Behavioral Dimension (Action) Learners applied insights in family settings—sharing songs, planting banana saplings, and cooking traditional recipes. Through these interwoven dimensions, the project materialized ESD's vision of education that transforms knowledge into sustainable action. Simultaneously, it enacted UNESCO's ICH principle that safeguarding heritage means keeping traditions

alive through participation, not preservation in isolation. The song thus became a *living conduit* for both environmental and cultural sustainability—where heritage was not archived but *performed, reinterpreted, and lived*.

4.2.4 Cultural Identity and Creative Economy Potential

Beyond its educational impact, the project generated significant *socio-cultural and economic implications*. The song emerged as a shared cultural symbol for Suan Phueng District, reinforcing social cohesion and pride in local identity. As communities and schools began using the song in cultural festivals and public events, it catalyzed opportunities in the *creative economy*: community concerts, culinary festivals featuring banana-based dishes, and educational souvenirs featuring the song. This aligns with Howkins' (2001) and DCMS (2001) perspectives that creativity and culture, when ethically harnessed, can drive sustainable local economies without co-modifying tradition. The project thereby demonstrated that *cultural sustainability and creative entrepreneurship* can coexist within the same educational framework.

4.2.5 Synthesis: Toward a Model of Music-Based Sustainable Education

Synthesizing these perspectives, the *Kluai Tanao Si Song Project* exemplifies how community-based, arts-integrated pedagogy can serve as a holistic model for *sustainable education*.

Table 2: Analytical Framework Linking Empirical Results, Interpretive Insights, and Theoretical References of the “Kluai Tanao Si Song” Project

Dimension	Empirical Result	Interpretive Insight	Theoretical Reference
Music as Knowledge	Song preserved and transmitted local wisdom	Confirms music as a living knowledge system	Merriam (1964); Rice (2014)
Co-Learning & Agency	Triadic collaboration	Creates shared ownership and empathy	Vygotsky (1978); Wenger (1998)
Interdisciplinary Integration	Song embedded across curricula	Demonstrates transdisciplinary learning	Swanwick (1999); Kolb (1984)
Competency Development	Collaboration, creativity, critical thinking	Supports 21st-century learning outcomes	Mezirow (1991); Campbell (2004)
Cultural & Economic Impact	Strengthened identity, new creative ventures	Reflects creative economy potential	Howkins (2001); DCMS (2001)

The project affirms that **music is both knowledge and pedagogy**—a vehicle for sustaining cultural identity, fostering creativity, and advancing lifelong learning. In doing so, it actualizes the ICETL 2025 vision: transforming education into a participatory, creative, and culturally grounded force for global sustainability.

4.2.6 Visual Concept: The Music–Knowledge–Sustainability Nexus

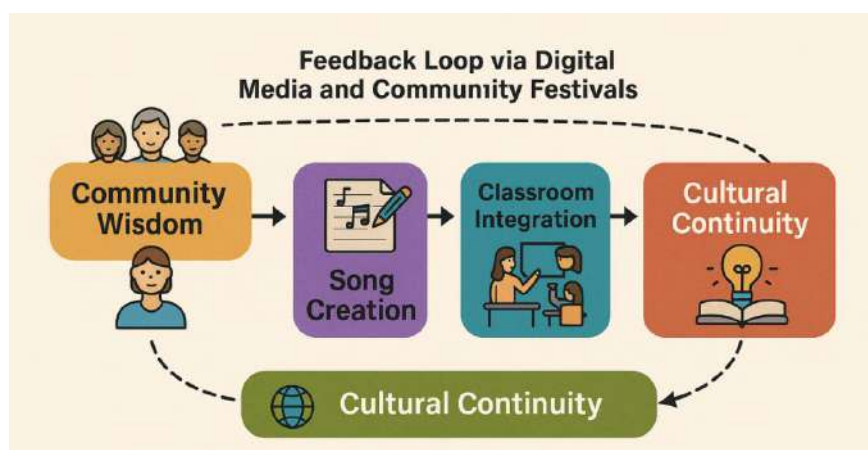


Figure 1 The Kluai Tanao Si Model of Music-Based Sustainable Learning

This cyclical nexus encapsulates the project’s central thesis: that when local knowledge is embodied in music, learning becomes not just an intellectual act but a living, cultural experience—sustaining both people



V. CONCLUSION

The *Kluai Tanao Si Song Project* demonstrates that music-based pedagogy can effectively serve as a model for cultural sustainability, creativity, and lifelong learning. By transforming indigenous knowledge into musical form, the project bridges the divide between traditional culture and modern education, allowing learners to experience their heritage as living knowledge rather than static history. Music in this context functions as both an art form and a knowledge system—a dynamic medium for capturing, transmitting, and revitalizing community wisdom through performance, reflection, and collaboration.

The findings confirm that integrating local culture into education not only preserves intangible heritage but also enhances student engagement, empathy, and critical awareness of sustainability. Through participatory songwriting, performance, and digital media production, students became co-creators of knowledge, while teachers and community members assumed roles as facilitators and cultural mentors. This collaborative process cultivated a sense of belonging and agency, aligning with UNESCO's principles of Education for Sustainable Development (ESD) and the Convention for the Safeguarding of the Intangible Cultural Heritage (2003).

Beyond pedagogy, the project's outcomes suggest implications for curriculum innovation and policy development, particularly in rural ASEAN contexts where community wisdom remains an underutilized educational resource. The integration of arts-based learning and local knowledge can inform national curricula, teacher training, and school-community partnerships, thereby fostering culturally responsive and sustainable learning systems.

In essence, the *Kluai Tanao Si Song Project* illustrates how education can harmonize creativity, culture, and sustainability. By positioning music as both the *medium* and the *message* of learning, it offers a replicable model for reimagining heritage as a living, evolving force within global education. This integrative approach—grounded in participation, empathy, and cultural continuity—embodies the spirit of ICETL 2025, where education, teaching, and learning become transformative pathways toward a more connected and culturally enriched world.

VI. ETHICAL APPROVAL

This study did not involve any medical, clinical, or experimental procedures with human or animal subjects.

VII. DATA AVAILABILITY

Underlying data

The datasets supporting the findings of this study derive from field observations, participatory workshops, interviews, and reflective journals conducted under the *Kluai Tanao Si Song Project* in Suan Phueng District, Ratchaburi Province, Thailand. These include qualitative data such as field notes, song drafts, classroom reflection logs, and documentation of community-based learning activities. The primary research materials are available from the corresponding author upon reasonable request.

Extended data

Supplementary audiovisual materials generated as part of the project's creative and educational outputs are publicly available through the project's official dissemination channel on YouTube. These videos document the processes of music-based learning, cultural knowledge transmission, and local food heritage related to *Kluai Tanao Si*.

Project Song and Community-Based Learning Video

- *Kluai Tanao Si Song – Community-Based Music Learning for Cultural Sustainability*
<https://youtu.be/v-pz1Zpl6hw>

Local Food Heritage Series: “Banana-Based Cultural Recipes”

- These short films were co-created by teachers, students, and community knowledge holders to preserve culinary wisdom and link it to the music-learning process:
- *Kluai Buat Chi (Banana in Coconut Milk)* – <https://youtu.be/BGi5t27E-ZE>
- *Kluai Caramel (Banana Caramel Dessert)* – <https://youtu.be/ezWCe4xhbak>
- *Kaeng Yuak Kluai (Banana Stem Curry)* – <https://youtu.be/XHbdcFJU6aQ>



- *Kaeng Hua Plee Sai Pla Ra (Banana Blossom Curry with Fermented Fish)* – <https://youtu.be/ZQ2G3Z78tYo>
- *Hua Plee Tom Kati (Banana Blossom in Coconut Soup)* – <https://youtu.be/LpT8Z1-CuEo>
- *Nam Prik Kluai (Banana Chili Paste)* – <https://youtu.be/C7UdwNpkKPo>
- *Lap Kluai (Banana Salad)* – <https://youtu.be/1U50UZhq48k>
- *Hua Plee Tod (Fried Banana Blossom)* – <https://youtu.be/hAl5vmFn92A>
- *Banana Heritage Menu Compilation* – <https://youtu.be/ZrNOpVzCkCs>

These audiovisual materials serve as both educational resources and cultural archives, illustrating the integration of local knowledge, creative pedagogy, and community participation. Together, they constitute the extended data corpus supporting this research on music-based learning, local wisdom transmission, and Education for Sustainable Development (ESD).

Data license

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VIII. GRANT /FUNDING

This research was financially supported by the National Budget for Fiscal Year 2024, Muban Chombueng Rajabhat University, Thailand. Total funding amount: 100,000 THB under the university's internal research grant for educational and cultural development projects.

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