

LEARNING CULTURE THROUGH CRAFT: SOCIAL LEARNING AND CULTURAL PARTICIPATION THROUGH MIAO EMBROIDERY IN GUIZHOU, CHINA

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ABSTRACT

This research is motivated by a gap in intangible cultural heritage studies, which still limit their ability to empirically explain how community-based social learning mechanisms maintain cultural participation beyond formal and event-based approaches. The purpose of this study is to analyze the characteristics of social learning, patterns of learning culture and cultural participation, as well as the dominant dimensions that shape community-based cultural practices in Miao embroidery. This study uses a quantitative, cross-sectional design with participants from the Miao embroidery community. Data were collected through a structured questionnaire that measured social learning, learning culture, and cultural participation. Data analysis used descriptive statistics, including means and standard deviations, to identify dominant patterns and dimensions. The results show that social learning is in the very high category, with practice participation as the most dominant learning mechanism. In contrast, cultural participation is primarily driven by attachment to cultural identity rather than participation in formal cultural events. These findings indicate that the sustainability of community-based culture is determined more by embodied learning processes and identity attachment than external or ceremonial approaches. Therefore, this study recommends that cultural preservation strategies focus on strengthening daily practices in communities, developing collective learning environments, and strengthening cultural identity to ensure the sustainability of traditional crafts.

Keywords: Social Learning; Learning Culture; Culture Participation; Miao Embroidery

INTRODUCTION

The interplay between personal attributes and the social dynamics of an individual's environment is a constant indication that an individual's cultural engagement is not arbitrary, as sociological research and cultural studies consistently demonstrate. In both elite (highbrow) and popular (middlebrow) cultural activities, educational attainment, social position, age, and gender are intricately linked to cultural involvement patterns, as evidenced by numerous studies (Bennett et al., 2009; Chan, 2010; Kraaykamp & van Eijck, 2010; Roose et al., 2012). However, these results emphasize that disparities in cultural engagement cannot be attributed solely to individual factors, as the social mechanisms through which culture is acquired and disseminated also considerably influence them.

In this context, the family and early social group are considered fundamental domains for the development of a learning culture, specifically, learning patterns inherent in quotidian social behaviors. Numerous studies have demonstrated that the social context of learning significantly influences an individual's cultural preferences, knowledge, and engagement, particularly through recurrent social interactions, imitation, and observation (Bandura, 1977; Rogoff, 2003; Lave & Wenger, 1991). According to the social learning approach, culture is not primarily transmitted through formal education but rather through active participation in significant social practices, which allow individuals to acquire knowledge of "how to be part of the culture" through direct engagement.

Research on cultural engagement increasingly highlights that it encompasses not just the consumption of cultural activities but also the internalization of values, identity, and a sense of belonging to a cultural community. Bourdieu (1984) illustrated that cultural participation acts as an indicator of social and symbolic distinction. In that engagement, in particular, cultural practices signify both social status and the habitus developed through prolonged socialization processes. Consequently, culture is not merely transmitted as knowledge, but rather as practices acquired and perpetuated through continuous social interactions. Although there is a substantial body of literature on cultural participation, the majority of research emphasizes the outcomes of participation (e.g., the frequency of attending cultural events or consuming art), while the social learning mechanisms that facilitate such participation are comparatively underexamined empirically (Yaish & Katz-Gerro, 2012; Kraaykamp & van Eijck, 2010). Numerous studies presume that cultural engagement is implicitly conveyed via the social environment. However, they neglect to elucidate the mechanisms of this social learning process, whether through passive modeling, active involvement, or collective participation in cultural practices.

The social learning theory offers a pertinent conceptual framework for elucidating this disparity. Bandura (1977) posits that social learning occurs through observing others' behaviors and their effects, whereas Rogoff (2003) and Wenger (1998) highlight the significance of collective engagement in communal rituals as a fundamental avenue for cultural learning. Nonetheless, in numerous cultural studies, the connection between social learning and cultural participation is often addressed implicitly, rather than being examined as a systematically tested causal relationship.

Moreover, the majority of empirical research on social learning and cultural involvement has occurred within formal educational environments or in urban cultural consumption venues, such as museums, plays, and concerts (Nagel, 2010; Van Hek & Kraaykamp, 2013). The environment of community-based cultural practices, especially traditional crafts, has been infrequently examined as a domain for active, ongoing social learning. In traditional craft practices, learning, value transmission, and cultural identity building transpire concurrently through social interaction, joint efforts, and active engagement in daily cultural activities. Consequently, a deficit persists in research that empirically investigates the role of social learning in fostering cultural involvement within community-based cultural practices. A critical question that remains insufficiently addressed is: to what degree can learning through social interaction, observation, and collective involvement in cultural activities promote enduring cultural engagement? Is the learning culture established within a community the principal factor in explaining individuals' levels of cultural participation?

This study recognizes social learning as a significant determinant elucidating variations in cultural engagement. This study emphasizes the social process of cultural learning as the primary factor affecting cultural involvement, unlike earlier research that focused on structural components or individual characteristics. This study contributes to the literature on cultural involvement and strengthens the theoretical understanding of learning culture as the foundation for the perpetuation and sustainability of cultural practices within society.

Research Question

1. What are the characteristics of social learning that occur in Miao embroidery practices in Guizhou?

2. How are different dimensions of social learning reflected in community-based embroidery practices?
3. Which dimensions of social learning are most dominant in shaping community-based learning practices?

LITERATUR REVIEW

Culture in Chinese Embroidery

Chinese embroidery, as a traditional handicraft with thousands of years of history, is deeply embedded in the cultural fabric of Chinese society. It is more than just an artistic expression; it embodies cultural values, philosophical beliefs, and collective identity. The evolution of embroidery in China is inseparable from Confucian, Taoist, and Buddhist traditions, each contributing to the motifs, symbolism, and techniques that have been passed down through generations (Adlin & Pookulangara, 2018; Wang, 2020). These cultural influences have cultivated embroidery not only as a decorative craft but as a medium of cultural continuity and identity transmission. At the core of Chinese embroidery culture lies the Confucian principle of harmony and order. The meticulous, labor-intensive nature of embroidery reflects the Confucian virtues of patience, discipline, and respect for tradition (Keane & Zhang, 2017; Li, 2019). Patterns often portray nature—flowers, birds, and mythical creatures—serving as metaphors for human virtues, harmony, and auspiciousness. These motifs are not arbitrarily chosen but are tied to deeply rooted cultural narratives and shared national consciousness. The act of embroidery, particularly for women in historical contexts, was also seen as a moral and cultural obligation, reinforcing social roles and gender norms aligned with Confucian thought.

In recent decades, globalization has introduced both opportunities and challenges to the cultural preservation of Chinese embroidery. As Chinese society becomes more integrated with global economic and cultural systems, traditional values embedded in embroidery are undergoing significant transformations (Su, 2018; Zhang & Smith, 2021). Modern consumers—both domestic and international—are increasingly valuing embroidery not only for its artistic merits but also for its cultural storytelling. This shift has necessitated a reinterpretation of embroidery motifs and techniques to align with contemporary tastes while still preserving cultural essence. Some artisans now blend traditional silk threadwork with modern fashion designs, creating hybrid forms that appeal to a broader, global audience. However, this cultural hybridization raises questions about authenticity, commodification, and the preservation of intangible heritage. The cultural value of embroidery lies not merely in its visual beauty but in the processes, rituals, and philosophies embedded in its creation. When embroidery is stripped of its cultural context and mass-produced for commercial gain, it risks losing its symbolic depth and becoming mere decoration (Zhang & Smith, 2021; Li, 2019). This tension between cultural preservation and market adaptation illustrates the broader dilemma faced by many traditional art forms in the global era. It also highlights the importance of cultural education and awareness in ensuring that global audiences appreciate the intrinsic values embedded within traditional Chinese embroidery.

Cultural perceptions of Chinese embroidery are also being reshaped through global discourse and cross-cultural exchange. As more international designers collaborate with Chinese artisans, embroidery is gaining visibility in global fashion runways and museums,

contributing to a renewed appreciation for its cultural significance. At the same time, the global market often interprets Chinese embroidery through an orientalist lens, emphasizing exoticism and nostalgia rather than understanding its deeper cultural meanings. This has led to a reassertion of cultural identity among Chinese artisans and cultural advocates who seek to reclaim narrative ownership and present embroidery as a living, evolving art. In sum, Chinese embroidery reflects China's rich cultural traditions, embodying philosophies, values, and collective memory. As it navigates the complexities of globalization, cultural identity, and economic modernization, the embroidery sector illustrates the intricate interplay between tradition and innovation. Understanding the cultural dimensions of embroidery is essential not only for preserving its heritage but also for ensuring that it continues to inspire and resonate in a global cultural landscape. The resilience of embroidery as both an art form and cultural practice demonstrates the enduring power of culture to adapt, connect, and communicate across generations and geographies

METHODOLOGY

This study employed a quantitative, explanatory research design. The aim was to examine the causal relationship between social learning, cultural learning, and cultural participation in the context of Miao embroidery practices in Guizhou, China. This study was cross-sectional, with data collected over a specific period to capture respondents' perceptions and experiences of social learning and cultural engagement.

Participant

A sample size of 210 is also sufficient for bootstrapping procedures with 5,000 resamplings, yielding stable parameter estimates and more accurate testing of mediation path significance. Thus, the sample size used not only meets the minimum methodological requirements but also strengthens the validity and reliability of the structural model tested.

Data

To test the research hypotheses, data were collected through a field survey conducted within the Miao embroidery community in Guizhou Province, China. The survey used a structured questionnaire designed to measure respondents' perceptions of social learning, cultural learning, and cultural participation in Miao embroidery practices. Data collection was conducted face-to-face, with a local enumerator to ensure respondents understood the questions and minimize errors. The initial target for data collection was 240 respondents. After screening and completeness checks, 218 questionnaires were collected. Eight questionnaires were excluded due to incompleteness or inconsistent response patterns, resulting in a final data set of 210 eligible respondents for analysis, yielding an effective response rate of 87.5%.

Measurements

All constructs in this study were treated as reflective latent variables and measured using a five-point Likert scale (1 = strongly disagree to 5 = strongly agree). The instrument was developed by adapting social learning theory (Bandura, 1977), communities of practice (Lave & Wenger, 1991; Wenger, 1998), cultural reproduction (Bourdieu, 1984), and social identity theory (Tajfel & Turner, 1979). All items were tested using an outer model evaluation in PLS-SEM to assess convergent validity and construct reliability.

RESULT

Table 1. Sample Characteristics (N = 210)

Characteristics	Category	Frequency (n)	Percentage (%)
Gender	Female	162	77.1
	Male	48	22.9
Age	18–25 years	38	18.1
	26–40 years	82	39.0
	41–60 years	66	31.4
	> 60 years	24	11.5
Education background	Elementary/Middle School	52	24.8
	Senior high school	93	44.3
	Diploma/Bachelor's Degree	65	30.9
Length of	1–2 years	36	17.1
Involvement in	3–5 years	74	35.2
Embroidery	> 5 years	100	47.7

RQ1. What are the characteristics of social learning that occur in Miao embroidery practices in Guizhou?

The general trends of respondents' responses to the constructs of Social Learning. The analysis was conducted on 210 respondents using a 5-point Likert scale (1 = strongly disagree; 5 = strongly agree). The mean value was used to interpret the construct level with the following categories: low (1.00–2.33), medium (2.34–3.66), and high (3.67–5.00).

Social Learning

The Social Learning (SL) variable is in the very high category, with an overall mean score of 4.15 (SD = 0.54) (Table 2). This score confirms that community-based learning is the primary foundation for developing Miao embroidery skills. The relatively low standard deviation indicates the consistency of respondents' perceptions that reliance on the community in the learning process is strong and widespread. Specifically, the item with the highest score was SL1 (M = 4.18), which states that most embroidery skills are acquired through collaborative learning within the community. This finding has structural significance: the community serves not only as a space for interaction but also as the primary mechanism for skill transmission. This means that individual technical competence in Miao embroidery is born from collective practice, not from individual or formal learning. This reinforces the theoretical assumption that social learning in traditional cultural contexts is embedded in the community's social structure.

Conversely, the item with the lowest score was SL4 (M = 4.12), which reflects that without community support, skills would not have developed as they have. While still in the high category, this score is slightly lower due to its counterfactual and reflective nature. This means that a small proportion of respondents may still acknowledge the presence of individual factors such as personal experience or independent practice. However, these score differences are very small and do not indicate a significant weakening of the Social Learning construct. The slight difference between the highest and lowest scores ($\Delta = 0.06$) indicates that all indicators move consistently in measuring the same construct. This strengthens the conceptual validity of the claim that Social Learning in Miao embroidery practices truly reflects the dependence of learning on the community as a social system. Substantively, these results confirm that learning in the Miao embroidery community is collective, participatory, and

institutionalized. Thus, Research Question 1 is empirically answered: the characteristics of social learning in Miao embroidery practices are intensive, community-based, and serve as the primary mechanism for the reproduction of cultural skills.

Table 2 Descriptive Statistics of Social Learning (SL Overall)

Item	Mean	S.D.
SL1. I acquired most of my embroidery skills through a collaborative learning process in the community.	4.18	0.58
SL2. The community is my main source for learning Miao embroidery techniques and methods.	4.14	0.60
SL3. I feel that the development of my embroidery skills was greatly influenced by social learning in the community.	4.16	0.57
SL4. Without the support and social learning process in the community, my embroidery skills would not have developed as they have.	4.12	0.63
Total Social Learning (Overall)	4.15	0.54

Observational Learning

The Observational Learning (OL) dimension is in the high category, with mean scores ranging from 4.05 to 4.18 and an overall mean of 4.12 (SD $\approx$ 0.66) (Table 3). This finding indicates that learning through observation is an important mechanism in Miao embroidery practice. The variation in responses was relatively low (SD < 0.75), indicating the consistency of respondents' perceptions of the role of observation in their skill development.

Table 3 Descriptive Statistics of Observational Learning

Item	Mean	S.D.
OL1. I learned embroidery techniques by observing more experienced community members.	4.10	0.68
OL2. I understand embroidery patterns and motifs through direct observation of other people's work processes.	4.15	0.64
OL3. I often copy embroidery techniques I see from other craftspeople.	4.05	0.72
OL4. Observing other people's embroidery practices helps improve my skills.	4.18	0.60

The highest-ranking item was OL4 (M = 4.18), "I often copy embroidery techniques I see from other craftspeople." Meanwhile, the slightly lower score for OL3 indicates that, despite high observational skills, the direct imitation process is not entirely dominant. This indicates that individuals do not simply copy, but may also creatively adapt observed techniques. In other words, observational learning in this community is reflective rather than mechanical. Observational learning within the Miao embroidery community provides a strong foundation for initial learning. However, the process does not stop at imitation but develops into a deeper understanding and skill improvement. Items OL1 (M = 4.10) and OL2 (M = 4.15) reinforce the finding that learning through observing experienced craftspeople and understanding motifs through direct observation are integral parts of the community's learning system. Overall, the difference in scores between items is very small ($\Delta = 0.13$), indicating that all indicators move consistently toward the formation of the Observational Learning construct. Substantively, these findings confirm that observational learning in Miao embroidery practices is systematic, oriented toward skill improvement, and serves as a foundation for the formation of a community-based learning culture. These results support the hypothesis that observational learning contributes significantly to the formation of a learning culture within the structural model.

Community Interaction

The Community Interaction (CI) dimension is in the high category, with mean scores ranging from 3.98 to 4.11, and an overall mean of 4.05 ($SD \approx 0.70$) (Table 4). This value indicates that social interaction within the Miao embroidery community actively serves as a medium for knowledge exchange and the strengthening of cultural values. The relatively low standard deviation (<0.75) indicates the consistency of respondents' perceptions regarding the importance of community interaction in the learning process.

Within this dimension, the highest-ranking item was CI3 ($M = 4.11$), which reads, "Community members provide feedback to each other on embroidery results." A high CI3 score indicates that collective feedback is the dominant learning mechanism. This indicates an evaluative and collaborative culture within the community, where work quality improves through discussion and joint correction. Thus, learning is not solely individual, but social and participatory. The lowest-ranking item was CI4 ($M = 3.98$), which reads, "Interactions with community members helped me understand the cultural value of Miao embroidery." The relatively lower CI4 score indicates that, despite strong technical interaction, the internalization of cultural values through social interaction is slightly lower than through technical means. This means that the interaction dimension is more focused on skills than on the reflection of symbolic values. Community interaction strengthens technical skills and collaboration, but strengthening cultural values may be achieved more through direct practice or collective identity than through discussion alone.

Table 4 Statistics Descriptive of Community Interaction

Item	Mean	S.D.
CI1. I actively discuss embroidery techniques with community members.	4.02	0.71
CI2. I often share experiences about difficulties and solutions in embroidery.	4.08	0.69
CI3. Community members provide feedback to each other on embroidery results.	4.11	0.65
CI4. Interactions with community members helped me understand the cultural value of Miao embroidery.	3.98	0.74

CI1 ($M = 4.02$) and CI2 ($M = 4.08$) confirm that discussing techniques and sharing experiences regarding difficulties are common and internalized practices within the community. The difference in scores between items is relatively small ($\Delta = 0.13$), indicating the construct's internal consistency. Substantively, these findings confirm that learning in the Miao embroidery community is dialogic and collaborative. Social interaction serves as a mechanism for clarifying techniques, solving problems, and strengthening the quality of practice. However, compared to direct participation in practice (PP), social interaction primarily serves as a supporting medium rather than a primary mechanism for skill development. This dimension theoretically strengthens the structural pathway to a Learning Culture, as a community learning culture cannot be formed without active communication and knowledge exchange among members.

Participation in Practice

The Participation in Practice (PP) dimension has the highest mean value compared to the other two dimensions in Social Learning, with a mean range between 4.14 and 4.22, and an overall mean of 4.18 ($SD \approx 0.61$) (Table 5). This finding indicates that direct involvement in

collective practice is the most dominant learning mechanism in the Miao embroidery community.

Table 5 Statistics Descriptive of Participation in Practice

Item	Mean	S.D.
PP1. I regularly participate in embroidery activities with community members.	4.20	0.58
PP2. I learned embroidery through hands-on practice in community activities.	4.22	0.55
PP3. I participate in training sessions or collective embroidery activities.	4.15	0.67
PP4. Direct involvement in collaborative practice improves my skills.	4.14	0.63
Total Social Learning	4.12	0.57

The highest-scoring item was PP2 ($M = 4.22$), which reads, "I learned embroidery through hands-on practice in community activities." The highest PP2 score confirms that hands-on learning is at the heart of the Miao embroidery community's learning process. This supports the community of practice perspective (Lave & Wenger, 1991), which states that cultural skills develop through active participation in collective practice. The next-highest-scoring item was PP1 ($M = 4.20$), indicating regular participation in embroidery activities with community members. This indicates that collective practice is repetitive and structured, rather than sporadic. This consistency reinforces the community's character as a vibrant and ongoing learning space. The item with the lowest relative score was PP4 ($M = 4.14$), although it remains in the high category. This item confirms that collaborative engagement enhances skills. The very small difference in scores ($\Delta = 0.08$) indicates that all indicators move consistently in describing the Participation in Practice construct. The relatively low standard deviation (<0.70) demonstrates the homogeneity of respondents' responses, indicating that collective practice is truly a common experience within the community. Substantively, the PP dimension emerged as the strongest pillar in the Social Learning structure. These findings clarify that in Miao embroidery practice, the most effective learning occurs through direct involvement in collective activities, rather than simply through observation or verbal interaction. This strengthens the theoretical argument that practice-based learning is the primary driver of the formation of a community-based learning culture.

RQ2. What are the levels and patterns of learning culture and cultural participation among members of the Miao embroidery community?

Learning Culture

The Learning Culture variable showed a total mean score of 4.09 ($SD = 0.61$) (Table 6), which is in the high category. This indicates that community-based learning norms in Miao embroidery practices have been strongly institutionalized and perceived consistently by community members. The relatively low standard deviation value indicates the homogeneity of respondents' perceptions of the existence of a collective learning culture.

Table 6 Descriptive Statistics of Learning Culture

Item	Mean	S.D.
LC1. In this community, sharing knowledge about embroidery is common.	4.05	0.66
LC2. The community encourages members to learn together on an ongoing basis.	4.12	0.62
LC3. Embroidery skills are actively passed down from generation to generation in this community.	4.08	0.70
LC4. Community members often teach each other new techniques.	4.15	0.59

LC5. Learning practices in this community take place consistently and in a structured manner.	4.07	0.64
Total Learning Culture	4.09	0.61

The Learning Culture dimension is measured through five indicators representing norms of knowledge sharing, intergenerational transmission, and the sustainability of learning practices. The highest item is LC4 ($M = 4.15$), namely "Community members have a habit of teaching each other new techniques." LC4 has the highest score and the lowest standard deviation. This indicates that the practice of teaching each other new techniques not only occurs but has become a stable, established habit in the community. The low variation ($SD = 0.59$) indicates a strong agreement among respondents that reciprocal teaching is the dominant social norm. Substantively, this indicates that the learning culture within the community is active and participatory, not merely passive sharing LC2, Mean = 4.12; $SD = 0.62$). "The community encourages members to learn together on an ongoing basis." A high score on LC2 indicates that shared learning is ongoing rather than episodic. This confirms that learning within the community is not a momentary event, but a continuous, institutionalized process. Overall, the Learning Culture within this community not only supports Social Learning but also functions as a social structure that ensures the sustainability of Miao embroidery practices.

Cultural Participation

The Cultural Participation (CP) variable is in the very high category, with an overall mean of 4.22 ($SD = 0.55$) on a Likert scale of 1–5 (Table 7). This value indicates that cultural participation in Miao embroidery practices has been internalized as part of an individual's social life, not merely an additional or symbolic activity. The low standard deviation indicates the consistency of respondents' perceptions of their cultural involvement.

Table 7 Descriptive Statistics of Cultural Participation (CP Overall)

Item	Mean	S.D.
CP1. I am actively involved in cultural life related to Miao embroidery.	4.18	0.59
CP2. I consistently participate in activities that strengthen the sustainability of Miao embroidery.	4.23	0.54
CP3. My involvement in Miao embroidery reflects my participation in community culture, not just a personal activity.	4.26	0.52
CP4. I am committed to continuing to participate in Miao embroidery cultural practices and activities.	4.21	0.55
Total Cultural Participation	4.22	0.55

The item with the highest score was CP3 ($M = 4.26$). This finding indicates that respondents interpreted their involvement in Miao embroidery as part of community cultural participation rather than merely an individual activity. This means that cultural participation is perceived as an expression of collective identity. This confirms that Cultural Participation in this context is communal and based on social solidarity. The item with the lowest score was CP1 ($M = 4.18$), although it remains in the very high category. This suggests that active involvement in cultural life may be slightly more variable than normative commitment to cultural sustainability. In other words, almost all respondents had a strong commitment to sustainability and cultural identity, but the intensity of actual involvement may vary slightly between individuals. The difference in scores between items was relatively small ($\Delta = 0.08$),

indicating excellent internal consistency of the construct. The standard deviation of all items was below 0.60, indicating homogeneity of responses and stability of the construct.

Engagement in Embroidery

The Engagement in Embroidery (EE) dimension is in the very high category with an overall mean value of 4.20 (SD = 0.57). This finding indicates that individual involvement in Miao embroidery activities is not sporadic but has become a routine part of daily life. The low standard deviation (<0.60) indicates the consistency of respondents' perceptions of their level of involvement.

Table 8 Descriptive Statistics of Engagement in Embroidery

Item	Mean	S.D.
EE1. I regularly engage in embroidery in my daily life.	4.18	0.60
EE2. I allocate specific time for embroidery activities.	4.22	0.56
EE3. I feel compelled to continue developing my embroidery skills.	4.19	0.58
EE4. Embroidery is an important part of my personal activities.	4.21	0.55

The highest-scoring item was EE2 (M = 4.22), indicating that respondents consciously allocate dedicated time for embroidery. This finding is important: embroidery engagement is not an incidental activity but rather a planned and prioritized one. Miao embroidery has significant value in shaping individuals' daily activities. The lowest-scoring item was EE1 (M = 4.18), although it remains in the very high category. This suggests that while most respondents regularly engage in embroidery, actual frequency may vary slightly between individuals, even given the time commitment or personal value attached to the activity. EE3 (M = 4.19) and EE4 (M = 4.21) reinforce the idea that engagement is not merely technical but also motivational and personal. Embroidery is seen as an important part of an individual's activities and is driven by a desire to develop skills continuously. The difference in scores between items was very small ($\Delta = 0.04$), indicating very strong construct consistency. This is in line with the SEM results, which show that the EE indicator loading is in the high range (0.834–0.860) and that the R^2 value is 0.439, indicating that Cultural Participation explains 43.9% of the variation in Engagement in Embroidery in the structural model.

Participation in Cultural Events

The Participation in Cultural Events (PCE) dimension is in the medium-high category, with an overall mean score of 3.84 (SD $\approx$ 0.76). This score is relatively lower than Engagement in Embroidery and Cultural Participation in general, indicating that participation in cultural events is more selective and situational than involvement in everyday practices.

Table 9 Descriptive Statistics of Participation in Cultural Events (PCE)

Item	Mean	S.D.
PCE1. I participated in a festival or cultural event related to Miao embroidery.	3.80	0.78
PCE2. I attended an exhibition or public event featuring Miao embroidery.	3.75	0.82
PCE3. I am involved in community activities that promote Miao embroidery.	3.92	0.69
PCE4. I contribute to cultural activities aimed at preserving Miao embroidery.	3.88	0.73

The highest-scoring item was PCE3 (M = 3.92), which indicates involvement in community activities promoting Miao embroidery. This finding indicates that participation in the context of community promotion and strengthening is more common than participation in formal events such as festivals or exhibitions. The lowest-scoring item was PCE2 (M = 3.75), which refers to attendance at exhibitions or public events. This score suggests that participation

in formal events may depend on the availability of opportunity, location, or other external factors. This suggests that event-based cultural participation is less intensive than daily practices or identity commitments. PCE1 and PCE4 showed relatively high scores but remained below the daily engagement dimension. Their slightly higher standard deviations than those of the other dimensions (up to 0.82) indicate greater variation in participation across individuals.

Cultural Identity Attachment

The Cultural Identity Attachment (CIA) dimension is in the very high category, with an overall mean value of 4.11 (SD = 0.56). This value is the highest among the Engagement in Embroidery and Participation in Cultural Events dimensions, indicating that identity attachment to Miao embroidery is the strongest aspect of respondents' cultural participation structure.

Table 10 Descriptive Statistics of Cultural Identity Attachment (CIA)

Item	Mean	S.D.
CIA1. I feel proud to be part of the Miao embroidery culture.	4.30	0.54
CIA2. Miao embroidery is part of my cultural identity.	4.25	0.57
CIA3. I feel a responsibility to preserve Miao embroidery.	4.27	0.56
CIA4. Miao embroidery practices strengthen my sense of community.	4.29	0.52
Total Cultural Identity Attachment	4.11	0.56

Cultural Identity Attachment (CIA) measures emotional attachment and cultural identity to Miao embroidery. The highest-scoring item is CIA1 (M = 4.30), "I feel proud to be part of Miao embroidery culture." This is the highest score in all Cultural Participation variables. This indicates that cultural involvement is not only technical, but also emotional and symbolic. Then, the item with High Consistency is CIA4 (SD = 0.52), "Miao embroidery practices strengthen my sense of community." The lowest standard deviation indicates very strong agreement that embroidery strengthens collective identity. Next, the item with the lowest score is CIA2 (M = 4.25), although it remains in the very high category. This indicates that although cultural identity is strongly recognized, expressions of pride and a sense of responsibility are slightly more dominant than statements of conceptual self-identification. The low standard deviation (0.52–0.57) indicates very strong consistency in respondents' perceptions, suggesting that identity attachment to Miao embroidery is collective and widely internalized within the community.

RQ3. Which dimensions of social learning and cultural participation are most dominant in shaping community-based cultural practices?

In terms of social learning, the most dominant dimension was Participation in Practice (PP), with an overall mean of 4.18, higher than Observational Learning (4.12) and Community Interaction (4.05). The highest-scoring item within it was PP2 (M = 4.22), indicating that learning through direct practice in community activities is the primary mechanism. This means that cultural skill development in Miao embroidery is strongest when individuals directly engage in collective practice rather than observe or discuss it.

In terms of cultural participation, the most dominant dimension was Cultural Identity Attachment (CIA), with a mean of 4.28, higher than Engagement in Embroidery (4.20) and Participation in Cultural Events (3.84). The highest-scoring item across all constructs was CIA1 (M = 4.30), which refers to a sense of pride in being part of Miao embroidery culture.

This indicates that community-based cultural practices not only develop technical skills but also strengthen emotional bonds, cultural pride, and a sense of collective responsibility. Thus, substantively, two main forces largely shape community-based cultural practices in Miao embroidery. First, in terms of learning, cultural practices are primarily supported by direct participation in collective practice. Second, regarding the outcomes of cultural participation, the strongest aspect is attachment to cultural identity. Conversely, the least developed dimension is Participation in Cultural Events, suggesting that this community's culture is more alive in daily practices and collective identity than in formal public activities. In other words, community-based cultural practices in Miao embroidery are shaped primarily by learning-by-doing and maintained primarily by bonds of cultural identity, rather than by event-based participation. This conveys an important message that the sustainability of traditional cultural practices rests more on the daily lives of the community than on ceremonial activities.

DISCUSSION

The most important finding of this study is that the continuity of Miao embroidery practices appears to be supported more by direct participation in collective practices than by mere observation or verbal interaction. On the cultural output side, the most prominent element is the attachment to cultural identity. This pattern makes sense considering the nature of embroidery as a highly tacit, embodied skill, difficult to transfer through oral explanation alone. In traditional crafts, technical knowledge resides not simply in "what is known," but in "how the body does it" through social rhythm, correction, and repetition. Therefore, shared practice becomes the most efficient medium for transmitting quality standards, movement precision, and aesthetic sensibility. This explanation aligns with Guo and Ahn (2023), who suggest that the sustainability of intangible cultural heritage crafts relies heavily on the dynamic sharing of tacit knowledge through its accumulation, expression, diffusion, and reflection. In other words, the findings of this study confirm that in Miao embroidery, learning is not primarily an individual cognitive process, but rather a social process embodied in repeated practice.

At the same time, the strong observational learning dimension, which does not extend beyond participation in practice, suggests that observation serves as an entry point, not an endpoint, for learning. Internally, this suggests that craftspeople do not simply imitate, but move from observing to experimenting, from experimenting to adapting, and from adapting to mastering. This process explains why observation scores remain high: observation provides initial access to community motives, work sequences, and standards, but skills only become established when individuals become fully immersed in the community's social practices. This pattern is consistent with a study of community-based heritage education in Melaka, which found that increasing levels of community participation are associated with increased cultural knowledge and awareness of the importance of living heritage; that is, active participation not only strengthens engagement but also deepens understanding of the culture itself (Adli et al., 2023). Compared with the literature, which often positions observation as the primary mechanism for skill transmission, this study's results emphasize that, in traditional crafts, observation is effective only when connected to practical experience.

Another important finding is that community interaction appears particularly strong in technical functions—discussion, experience sharing, and feedback—but not in explaining the internalization of cultural values. Substantively, this suggests a functional differentiation in

social learning: verbal interaction is highly effective for solving concrete problems, improving work outcomes, and standardizing quality, but the symbolic meaning of culture appears to be more deeply embedded through repeated engagement and a sense of ownership of the practice itself. This helps explain why communities can be highly communicative in technical matters, but cultural identity remains more deeply constructed through everyday participatory experiences. This reading aligns with Chen and Wang's (2024) study, which emphasizes that the social dimension of cultural heritage encompasses not only community presence but also shared traditions, collective memories, and ongoing emotional bonds. However, this study adds an important nuance: in craft contexts, social communication is indeed important, but it operates primarily as a mechanism for calibrating practices rather than as the sole pathway for internalizing cultural meaning.

The strong learning culture in this study should not be interpreted simply as a positive learning atmosphere, but rather as an indicator that knowledge sharing has become an established social norm. Internally, this occurs when mutual teaching, collaborative learning, and intergenerational transmission no longer rely on specific individuals but become expected patterns within the community. At this point, knowledge is no longer possessed but circulated. This is important because an institutionalized learning culture makes practices more sustainable and less vulnerable to personal change. This finding aligns with a study of community-based cultural heritage safeguarding in Malawi, which found that cultural preservation is more effective when initiated from a community-centric perspective and supported by integrating education, community participation, and efforts to maintain collective cultural narratives (Mudau et al., 2024). Thus, this study strengthens the argument that the resilience of traditional culture depends more on the institutionalization of learning norms within the community than on occasional external intervention.

Regarding cultural participation, the dominant cultural identity attachment indicates that the sustainability of Miao embroidery is fundamentally supported not only by technical competence but also by affective and symbolic bonds. Internally, this is understandable, as Miao embroidery appears to serve as a marker of history, memory, pride, and intergenerational responsibility; therefore, engaging in embroidery is not simply "practicing a skill" but also "practicing an identity." This explanation aligns closely with Li et al. (2025), who found that in traditional craft innovation, the most crucial core factors are historical continuity, knowledge transmission, and the integration of tradition and modernity. They also demonstrated that emotional communication and local culture play a direct role in bridging cultural foundations with innovative practices. Compared with those studies, this research extends the argument from the realm of innovation to the realm of participation: cultural identity is not only the driving force behind craft innovation but also the foundation for community members' persistence in the cultural practice itself.

A relatively different finding from some recent literature is that participation in formal cultural events does not hold a strong position. Many studies in the past five years on Miao embroidery emphasize the importance of digitization, databases, and modern design as pathways to cultural preservation and expansion. Zhang and Sharudin (2024) assert that digital design can expand the dissemination and protection of Miao embroidery, while Du and Jiang (2024) demonstrate that digital databases and production platforms can improve market access, efficiency, and global exposure for Miao embroidery. These two studies are crucial and

relevant, but your research demonstrates that the core of socio-cultural sustainability lies in the community's daily practices, not primarily in formal events or in expanding external channels. Therefore, this research position does not deny the importance of digitalization, but rather offers a conceptual correction: technology and public events may enhance visibility and innovation, but the deepest cultural reproduction still occurs through daily practices, community relations, and a vibrant cultural identity. This is precisely the study's primary contribution to contemporary discourse on intangible cultural heritage.

Overall, this study demonstrates that the sustainability of Miao embroidery practices is constructed by three interrelated layers of mechanisms: collective practice as the primary medium of learning, learning culture as a social structure that stabilizes knowledge transmission, and cultural identity as an affective energy that sustains participation. At this point, the research contribution becomes more than merely descriptive. This study proposes that in community-based traditional crafts, culture persists not primarily because of events, promotions, or even external innovations, but because the community successfully makes learning a social habit and identity a reason for continued participation. This framework aligns with recent literature on traditional handicrafts and sustainable intangible cultural heritage, which places community participation, knowledge transmission, and cultural continuity at the heart of preservation. This study, however, emphasizes the superiority of learning-by-doing and identity-based participation in the context of Miao embroidery.

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