

Integrating Intangible Cultural Heritage (ICH) Into Early Childhood Education as a Proactive Strategy for TVET Enhancement

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ABSTRACT

This study examines whether integrating Intangible Cultural Heritage (ICH) into early childhood education (ECE) can strengthen the foundational dispositions later mobilised in Technical and Vocational Education and Training (TVET). A cross-sectional survey was administered at Yunnan Normal University Affiliated Chenggong Kindergarten (Kunming, China). Guided by the Krejcie–Morgan approach to sample sufficiency, responses were obtained from 30 teachers and 148 parents. Two instruments were used—teachers (demographics, perceptions, ICH-activity suitability, implementation challenges) and parents (demographics, perceptions)—and demonstrated acceptable internal consistency (Cronbach’s α : teachers = 0.70; parents = 0.92). Data were analysed in SPSS 29 using descriptive statistics and non-parametric tests with corresponding effect sizes and 95% confidence intervals; for descriptive readability, 5-point Likert responses were collapsed to disagree/neutral/agree, while inferential analyses used the original ordinal data. Ethics approval was granted by the authors’ institution; participation was voluntary, anonymous, and based on informed consent. Perceived importance of ICH integration was very high: over 95% of respondents endorsed ICH as valuable for cultural identity, creativity, and holistic development. Art- and language-based activities (traditional crafts, songs, storytelling, performing arts) were rated most suitable for young children. However, reported classroom implementation was modest (12.9%–25.8% across domains). Principal barriers included complex curricular resources (77.4%), difficulty embedding ICH in existing pedagogy (71%), insufficient materials (64.5%), and limited teacher expertise (61.3%). Demographic factors did not differentiate teachers’ perceptions; among parents, academic qualification showed a small but significant association. Findings reveal a perception–practice gap. Targeted teacher training, improved resource provision, and school–community partnerships are recommended to support sustainable ICH–ECE integration aligned with TVET-oriented skill formation.

Keywords: Intangible Cultural Heritage (ICH); Early Childhood Education (ECE); TVET; Culture-Based Learning; Skills Development

INTRODUCTION

Education today is no longer confined to a binary distinction between cultural and vocational learning. Global educational research increasingly recognises that creativity, collaboration, and craftsmanship are not separate domains but interdependent dimensions of human development (OECD, 2021). Within this paradigm, the integration of Intangible Cultural Heritage (ICH) into Early Childhood Education (ECE) provides a lens for understanding the early emergence of dispositions relevant to the vocational field. In Yunnan Province,

particularly the Chenggong District of Kunming, a culturally rich environment supports this inquiry. Various forms of regional heritage expression such as traditional crafts and folk performances reflect practical wisdom, manual skills, patience, and collaboration, which form the foundation of vocational competencies. Although this study does not operationalise specific heritage practices as instructional activities, these examples are used conceptually to illustrate how ICH-related learning may nurture fine-motor coordination, creative thinking, spatial reasoning, and cultural awareness, all of which contribute to the foundations of vocational capability.

In recent years, Technical and Vocational Education and Training (TVET) has been emphasised globally as a critical mechanism for skill formation, innovation, and economic transformation (UNESCO-UNEVOC, 2023). However, most TVET reforms remain concentrated at the secondary and post-secondary levels, leaving the question of where vocational readiness begins insufficiently examined. Suppose vocational competence is understood not merely as the acquisition of job-specific skills but as the development of creativity, persistence, problem-solving, and collaboration. In that case, these dispositions arguably originate in early childhood (Heckman, 2013). In this sense, ECE and TVET can be conceptualised as two interconnected stages within a lifelong learning continuum—one fostering the dispositions, the other applying them. ICH-related learning offers a meaningful interface within this continuum. The embodied, cooperative, and context-rich characteristics of heritage-based activities mirror the transversal competencies prioritised in contemporary TVET frameworks. UNESCO (2022) highlights collaboration, creativity, problem-solving, and sustainability as essential competencies for the modern world of work, while high-quality ECE is known to cultivate these abilities through play, project work, and social interaction (OECD, 2021). ICH integration may therefore serve as a natural bridge linking cultural continuity with the early development of vocationally relevant skills.

However, it is important to establish a conceptual boundary that the integration of ICH at the early childhood level functions as a form of pre-vocational development. Despite increasing policy attention, empirical evidence regarding ECE stakeholders' perceptions of ICH integration remains limited. Many early childhood educators report uncertainty about its pedagogical value, and existing curriculum documents often lack explicit guidance on how heritage-based learning aligns with developmental objectives. These gaps underscore the need for systematic evidence on the perceived relevance, feasibility, and educational soundness of ICH integration from the perspectives of key stakeholders. Accordingly, this study investigates how kindergarten teachers and parents in Chenggong District perceive the integration of ICH into ECE and identifies the challenges teachers face in practice.

Specifically, the study addresses the following research questions:

- i) What are kindergarten teachers' and parents' perceptions of integrating Intangible Cultural Heritage (ICH) into early childhood education?
- ii) What ICH-related activities are perceived as suitable for application in kindergarten teaching and learning?
- iii) What challenges do teachers face while integrating ICH into early childhood settings?
- iv) Are there significant differences in kindergarten teachers' and parents' perceptions of ICH integration based on their demographic characteristics

LITERATURE REVIEW

Early Childhood Education and Early Skill Formation

Early Childhood Education (ECE) constitutes the foundation of lifelong learning and plays a central role in shaping children's cognitive, socio-emotional, language, and motor development. High-quality early learning environments support children's executive function, self-regulation, and cooperation—competencies closely linked to later adaptability in academic and vocational contexts. Research has consistently shown that play-based and inquiry-oriented pedagogies cultivate creativity, collaboration, resilience, and problem-solving (OECD, 2021). These developmental processes are not only essential for early academic achievement but also form the early dispositions that underpin vocational capability. From this perspective, ECE functions as a stage of pre-

vocational development, preparing children with the foundational attitudes and abilities upon which future technical and vocational skills can be built.

Shared Competencies Between ECE and TVET

Although ECE and Technical and Vocational Education and Training (TVET) traditionally serve different age groups and operate within different educational frameworks, both systems emphasise a similar set of transversal competencies. UNESCO-UNEVOC (2023) highlights that TVET aims to develop skills for work and life, including communication, creativity, problem-solving, collaboration, and adaptability. These same competencies are nurtured in ECE through child-centred, exploratory, and socially interactive learning environments.

For example, collaborative play requires children to negotiate roles, share materials, and co-construct meaning skills that parallel teamwork and project collaboration in vocational settings. Exploratory activities stimulate problem-solving and early scientific reasoning, providing the foundation for technical troubleshooting and process understanding. Creative engagement with materials through art, construction, or imaginative play fosters innovative thinking, a core attribute in design, craftsmanship, and entrepreneurship. Language-rich experiences, such as storytelling and expressive communication, support verbal fluency and social engagement, which later translate into workplace communication and service interaction. Fine-motor coordination and sensory exploration provide early experiences relevant to craftsmanship and quality awareness. Self-regulation and persistence—cultivated through rule-based play and sustained attention—relate to work discipline, safety, and reliability in vocational learning environments.

These parallels indicate that vocational capacity does not emerge suddenly in adolescence but rather develops gradually from early childhood experiences that support coordinated action, imagination, and purposeful making.

Educational Value of Intangible Cultural Heritage (ICH)

Intangible Cultural Heritage (ICH) encompasses living traditions—such as oral expressions, crafts, performing arts, rituals, and ecological knowledge—that transmit community values and creativity (UNESCO, 2003). Emerging literature in heritage education emphasises the developmental benefits of engaging children in culturally meaningful practices, particularly in identity, social understanding, and holistic growth.

In cognitive and motor development, heritage crafts (such as paper-cutting, embroidery, clay modelling, or patternmaking) require precision, coordination, and attention to detail, supporting fine-motor development and visual-spatial reasoning (Binbin, 2024). Language and social development are enriched through traditional songs, folk tales, and storytelling, which enhance narrative competence, listening skills, empathy, and intercultural communication (Pérez-Guilarte, 2023). Emotional and cultural development is supported as children participate in shared cultural activities that promote belonging, pride, and cultural literacy (Has, 2024). ICH also contributes to inquiry and ecological awareness: traditional ecological knowledge and locally rooted practices encourage observation, classification, and exploration, forming early scientific thinking and environmental consciousness (UNESCO, 2022).

Taken together, the educational value of ICH spans multiple developmental domains, positioning it as a rich pedagogical resource for early childhood education.

ICH as a Bridge Between ECE and TVET

The conceptual alignment between ICH, ECE, and TVET suggests that heritage-based learning can function as a bridge across these educational stages. ICH practices often embody, are collaborative, and are contextual, characteristics that correspond to the transversal skills emphasised in TVET.

For instance, traditional crafts such as tile-cutting, paper-cutting, or embroidery cultivate precision, patience, and reflective practice, mirroring the craftsmanship and quality awareness valued in vocational training (UNESCO-UNEVOC, 2023). Oral and performing traditions—such as storytelling, folk music, and cultural

performances—reinforce expressive communication, rhythm, coordination, and teamwork, paralleling these competencies in vocational settings (Pérez-Guilarte, 2023). Collective cultural activities embedded in community rituals or festivals strengthen cooperation, social cohesion, and creativity, skills essential for group problem-solving and project-based work. Traditional ecological knowledge introduces sustainability, contextual judgement, and material awareness, reflecting the principles of responsible and sustainable practice promoted by global TVET frameworks (UNESCO, 2022; World Bank, 2023).

In summary, previous research highlights three interconnected points:

1. ECE establishes foundational cognitive, socio-emotional, and motor competencies essential for lifelong learning.
2. TVET builds upon these early-developed transversal skills to shape vocational capability.
3. ICH provides a culturally grounded context through which these shared competencies can emerge and develop.

This synthesis underscores the importance of examining how ICH integration is perceived and enacted in early learning environments, which serves as the basis for this study's empirical investigation.

METHODOLOGY

Research Design

This study employed a cross-sectional quantitative survey design to examine teachers' and parents' perceptions of integrating Intangible Cultural Heritage (ICH) into early childhood education (ECE) and to identify related implementation challenges. Because data were collected at a single point in time, no causal inferences were made.

Sampling Frame and Participants

The study was conducted in Chenggong District, Kunming, Yunnan Province. The sampling frame comprised all teachers and parents of Yunnan Normal University Affiliated Chenggong Kindergarten, a public kindergarten in which ICH integration is mandated across daily instructional activities.

This kindergarten was purposefully selected because it practices comprehensive ICH implementation, offering information-rich cases compared with other public kindergartens in the district, where ICH incorporation is optional. A simple random sampling technique, guided by the Krejcie and Morgan (1970) sample size determination table, was used to recruit the participants. A total of 30 teachers and 148 parents participated in the study, representing 100 per cent of the teacher population and 61.7 per cent of the parent population. Table 1 presents the population and sample size distribution for teachers and parents.

Table 1: Population and sample size of the study

Respondents	Population	Samples
Teachers	30	30
Parents	240	148
Total	270	179

Inclusion criteria were full-time teachers employed at the kindergarten and parents or guardians of enrolled children. No exclusion criteria were applied.

Research Instruments

Two structured questionnaires were used, one for teachers and one for parents. The teacher questionnaire consisted of four parts: demographic information, perceptions of ICH integration (10 items), suitability of ICH-related activities (8 items), and challenges in implementation (7 items). The parent questionnaire consisted of two parts: demographic information and perceptions of ICH integration (12 items). All items used a five-point

Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). An example item was “Integrating ICH into early childhood education helps strengthen children’s cultural identity.” For descriptive reporting purposes, the Likert scale was collapsed into three categories: disagree (1–2), neutral (3), and agree (4–5). All inferential analyses were conducted using the original ordinal responses.

Validity and Reliability

Content validity was established by a panel of three experts with specialisation in early childhood education, intangible cultural heritage, and technical and vocational education and training. The experts reviewed item clarity, cultural suitability, coverage of the construct domains, and alignment with the study's developmental objectives. A pilot study was conducted with 30 teachers and 30 parents from a comparable kindergarten. Cronbach’s alpha coefficients indicated acceptable internal consistency. The teacher instrument yielded an alpha value of 0.70, and the parent instrument yielded an alpha value of 0.92. The lower alpha value for the teacher instrument was attributed to the small number of items in the Challenges subscale, which is known to reduce reliability estimates in short scales.

Data Analysis

Data were analysed using the Statistical Package for the Social Sciences (SPSS) Version 29. Normality was assessed using the Shapiro–Wilk test, which indicated non-normal distributions. Therefore, non-parametric tests were used. Descriptive statistics (frequencies, percentages, means, and standard deviations) summarised participant demographics and perceptions. Inferential analyses included the Mann–Whitney U test and the Kruskal–Wallis test to examine differences based on demographic variables. Effect sizes were calculated using r for Mann–Whitney tests and eta-squared (η^2) for Kruskal–Wallis tests. Ninety-five percent confidence intervals for effect sizes were produced using bias-corrected bootstrapping with 5,000 resamples. Statistical significance was set at .05 (two-tailed).

RESULT AND DISCUSSION

Teachers’ and parents’ perceptions of integrating Intangible Cultural Heritage (ICH) into early childhood education

Table 2 shows that 97.9% of respondents agreed with Item 1, while only 2.1% disagreed, indicating that the majority recognise the importance of integrating Intangible Cultural Heritage (ICH) as a meaningful element in preschool education. This reflects a high level of awareness that ICH helps shape children’s cultural identity and values from an early age. First, respondents recognize the role of ICH in physical and fine motor development, where activities like traditional weaving and crafts are seen as vital prerequisites for future technical skills. According to UNESCO (2003) and Chung (2020), early childhood education is an essential platform for instilling cultural heritage values and fostering national identity. For Item 2, 91.2% agreed, and 10.8% disagreed, suggesting that most respondents believe ICH activities—such as traditional dance, folk games, and performing arts—enhance children’s physical development. Sudaryanti et al. (2024) found that traditional games strengthen children’s muscle coordination and endurance through repetitive movement and social interaction.

Meanwhile, 98.6% agreed with Item 3, and only 1.4% disagreed, indicating that activities such as weaving, painting batik motifs, or playing traditional instruments improve fine motor skills and hand–eye coordination. Tamizi et al. (2025) emphasised that culturally based art activities enhance fine motor development through structured hand-skill practice. For Item 4, 98% of respondents agreed that ICH serves as a medium for introducing cultural diversity, fostering tolerance, and promoting positive emotions. Yang and Chsing (2024) stated that exposure to multicultural traditions cultivates empathy, acceptance, and emotional well-being among young learners. Similarly, Item 5 recorded 98% agreement, indicating that ICH helps children understand history and cultural origins, thus transmitting traditional wisdom to the younger generation. Kamarudin and Hassan (2022) asserted that cultural heritage elements in education encourage appreciation of cultural roots and strengthen the continuity of national identity.

Furthermore, 97.2% agreed that ICH activities nurture patriotism and love for one’s hometown through folk

songs, local games, and legends. Yang and Chsing (2024) also reported that heritage-based teaching enhances cultural pride among preschool children. Next, 89.8% agreed, and 10.1% disagreed, that ICH helps language acquisition through traditional songs, proverbs, and folktales. The small percentage of disagreement may be due to differences in dialects or family language backgrounds. For Item 8, 98% agreed that oral literature, such as rhymes and folktales, supports communication, empathy, and emotional expression. Cheng (2025) noted that these oral cultural activities enhance social competence and cultural understanding through repeated verbal interaction. 98.6% agreed that traditional games and handicrafts promote exploration and experiential learning. Similarly, 98% agreed that ICH activities stimulate curiosity and awareness of the natural and cultural environment. Cheng (2025) emphasised that culture-based activities encourage children to explore scientific and social phenomena within their surroundings.

For Item 11, 92.6% agreed that mathematical values are embedded in activities such as weaving patterns, geometric designs in batik, and counting games. Likewise, 93.2% agreed that ICH activities foster early mathematical and scientific concepts through traditional patterns, design, and numerical play. Most respondents also agreed that ICH cultivates aesthetic appreciation through art, music, and traditional crafts inspired by nature. Cheng (2025) found that cultural art activities enhance children's aesthetic awareness and visual sensitivity. In Item 14, 97.2% agreed that exposure to diverse cultural art forms—dance, drawing, and music—stimulates creativity and appreciation of human expression. Chung (2020) affirmed that diverse artistic heritage experiences encourage imagination and self-expression in children.

Besides, for Item 15, 95.9% agreed that ICH activities provide opportunities for creative expression, helping children express emotions and build self-confidence. Musa (2025) highlighted that art and culture provide a social context for self-expression and identity formation. Finally, 95.9% agreed that ICH acts as a catalyst for creativity, enabling children to create, imagine, and appreciate traditional artistic works. Handayani and Saearani (2024) argued that cultural art experiences enrich creativity and flexible thinking in early childhood education.

Table 2: Teachers' and parents' perceptions of integrating ICH

No.	Item	Disagree				Neither disagree nor agree				Agree			
		T		P		T		P		T		P	
		f	%	f	%	f	%	f	%	f	%	f	%
1.	The integration of intangible cultural heritage into kindergarten education is meaningful	0	0	3	2.1	0	0	0	0	30	96.7	145	97.9
2.	Conducting this activity can enhance the strength and endurance of young children.	2	6.5	13	10.8	0	0	0	0	29	93.5	135	91.2
3.	Carrying out this activity can promote the flexibility and coordination of children's hand movements.	0	0	2	1.4	0	0	0	0	31	100	146	98.6
4.	Carrying out this activity can promote children's understanding of various ethnic cultures, gain positive emotions, and promote their physical and mental health	0	0	3	2.1	0	0	0	0	31	100	145	98
5.	Carrying out this activity can promote young children's understanding of history, inheritance of culture, and	0	0	3	2.1	0	0	0	0	31	100	145	98

	experience the crystallisation of human wisdom												
6.	Carrying out this activity can help young children to develop a sense of national pride, love for their country, and love for their hometown.	0	0	4	2.7	0	0	0	0	31	100	144	97.2
7.	Carrying out this activity can help young children to speak the local language and Mandarin, with correct and clear pronunciation.	1	3.2	15	10.1	0	0	0	0	30	96.8	133	89.8
8.	Conducting this activity can promote children's understanding of oral literature, express their feelings and cognition towards intangible cultural heritage, and facilitate their sharing and communication.	0	0	3	2.1	0	0	0	0	31	100	145	98
9.	Carrying out this activity can improve children's exploration ability	1	3.2	2	1.4	0	0	0	0	30	96.8	146	98.6
10.	By conducting this activity, young children can learn about things and phenomena around them through exploration.	1	3.2	3	2.1	0	0	0	0	30	96.8	145	98
11.	Conducting this activity can promote children's perception of the usefulness and fun of mathematics in daily life.	0	0	11	7.5	0	0	0	0	31	100	137	92.6
12.	Conducting this activity can promote children's perception and understanding of numbers, quantities, and their relationships, as well as their perception of the relationship between shape and space.	1	3.2	10	6.8	0	0	0	0	30	96.8	138	93.2
13.	Carrying out this activity can enhance children's interest in beautiful things in nature and life	1	3.2	2	1.4	0	0	0	0	30	96.8	146	98.6
14.	By conducting this activity, young children can appreciate a variety of art forms and works.	1	3.2	4	2.8	0	0	0	0	30	96.8	144	97.2
15.	Carrying out this activity can promote young children to engage in artistic activities and express themselves boldly.	0	0	6	4.1	0	0	0	0	31	100	142	95.9
16.	Conducting this activity can develop children's artistic expression and creative abilities	0	0	6	4	0	0	0	0	31	100	142	95.9

The activities related to ICH that are suitable for application in kindergarten teaching and learning

Table 3 presents the respondents' perceptions of the suitability of various types of Intangible Cultural Heritage (ICH) for integration. The findings reveal that the majority of respondents strongly agreed that all ICH types are suitable for integration. No category received more than 10% disagreement, indicating a generally positive perception of ICH's relevance in contemporary settings.

Specifically, Art received the highest level of agreement (100%), followed by Society (98.5%) and Language (96.8%). Hands-on activities like tile-cat making, paper-cutting, and lantern dances are considered most effective due to their visually stimulating nature and active child participation. This suggests that respondents strongly recognise these domains as essential for strengthening cultural identity and fostering community values. These findings are consistent with Bihari (2023), who emphasises that art and language form the core of intangible heritage and are crucial for transmitting cultural knowledge across generations.

Meanwhile, Science (90.4%) and Health (87.1%) recorded slightly lower levels of agreement, though still within the high range. This slight difference may be attributed to the perception that traditional elements in science and health are more challenging to integrate with modern, technology-driven frameworks (Sain et. al., 2025). A small proportion of respondents (9.7%) disagreed with integrating health and science-related heritage, possibly viewing these elements as less relevant in a contemporary context (Sudaryanti et al., 2024).

Overall, the data in Table 3 indicate that respondents have a high level of awareness and appreciation of the importance of integrating ICH across sectors. This reflects the continuing recognition of intangible heritage as a vital component of sustainable cultural development, aligning with UNESCO's goals to safeguard cultural diversity through education, art, and the social sciences (Jagielska-Burduk et. al., 2021).

Table 3: ICH suitable for integration

Types of ICH	Disagree		Neither disagree nor agree		Agree	
	f	%	f	%	f	%
Health	3	9.7	1	3.2	27	87.1
Language	1	3.2	0	0	30	96.8
Society	0	0	0	0	31	98.5
Science	3	9.7	0	0	28	90.4
Art	0	0	0	0	31	100

Table 4 illustrates the respondents' perceptions of the extent to which various types of ICH have actually been integrated. Across all categories, the percentage of respondents who answered "Yes" is noticeably low, ranging from 12.9% to 25.8%. The highest levels of reported integration were observed in Art (25.8%) and Society (25.8%), suggesting that cultural and artistic heritage are the most visible or actively practised forms of ICH integration. These domains often have more tangible platforms such as festivals, performances, and community events where heritage elements can be more easily incorporated and recognised (Labrador, 2022).

Table 4: ICH has been integrated

Types of ICH	No		Not sure		Yes	
	f	%	f	%	f	%
Health	3	9.7	24	77.4	4	12.9
Language	0	0	25	80.6	6	19.4
Society	0	0	23	74.2	8	25.8
Science	3	9.7	21	67.7	7	22.6
Art	0	0	23	74.2	8	25.8

In contrast, Health (12.9%), Language (19.4%), and Science (22.6%) show much lower levels of integration. The limited integration of health-related and scientific heritage may stem from the perception that traditional practices are less compatible with modern systems and standards (Zain El Shandidy, 2023). Moreover, the institutionalisation of modern education and healthcare often marginalises traditional knowledge, reducing opportunities for heritage-based approaches to be implemented in formal settings (Zainal, 2020).

A notable observation is the high proportion of “Not sure” responses across all categories, ranging from 67.7% to 80.6%. This indicates a widespread lack of awareness or information among respondents regarding actual ICH integration initiatives. Such uncertainty may reflect the limited documentation, visibility, or promotion of heritage-based programs at the institutional or community level (Rahman & Abdullah, 2019).

Table 5 Types of activities in ICH

Types of ICH	Health		Language		Society		Science		Art	
	F	%	f	%	f	%	f	%	f	%
Tile cat	7	22.58	26	83.87	23	74.19	12	38.70	25	80.65
Paper-cut	6	19.35	20	64.51	20	64.51	16	51.61	28	90.32
Lantern Dance	10	32.25	24	77.42	20	64.51	7	22.58	26	83.87
Bench Dragon	20	64.51	12	38.70	19	61.29	4	12.90	17	54.84
Lingjiao of a straw-plaited article	2	6.45	12	38.70	20	64.51	21	67.74	27	87.10
Sage Painting	1	3.22	12	38.70	17	54.84	5	16.13	24	77.42
Yunnan opera	11	35.48	22	70.97	21	67.74	4	12.90	24	77.42
Embroid	3	9.68	12	38.70	17	54.84	7	22.58	22	70.10
Else	2	6.45	0	0.00	0	0.00	1	3.22	0	0.00
Total	62	100	140	100.00	157	100.00	77	100	193	100.00

Based on the findings in Table 5, various types of ICH activities were identified as suitable for integration into kindergarten teaching and learning. The results indicate that art-related ICH activities received the highest level of agreement among respondents, followed by language and society-based activities, while science- and health-related activities were less emphasised. This suggests that visual, creative, and cultural expressions such as traditional crafts, performing arts, and storytelling are perceived as more feasible and engaging for young children. These activities not only preserve local traditions but also enhance well-being and social cohesion, key competencies aligned with TVET’s holistic development goals (UNESCO, 2022).

Among the listed activities, tile craft (80.65%), paper cutting (90.32%), lantern making (83.87%), and dragon-related crafts (87.10%) recorded the highest percentages in the art and language domains. These activities are hands-on, visually stimulating, and culturally rich, which makes them effective for nurturing creativity, fine motor coordination, and cultural awareness in early learners (Chopra, 2025). These findings support integrating ICH into skills-based TVET curricula, where learners develop practical competencies while engaging with cultural knowledge systems (UNESCO-UNEVOC, 2021). The use of traditional art forms, such as paper cutting or Yunnan opera performance, allows children to explore cultural heritage through play and expression, aligning with developmentally appropriate pedagogies in early childhood education (Yang & Chsing, 2024).

Language-related ICH activities such as traditional songs, folktales, and rhymes (as reflected in the 83.87% for tile craft and 64.51% for paper cutting under the language category) were also highly endorsed. These activities promote language acquisition, listening skills, and cultural transmission through oral storytelling (Xu & Zhou, 2024). Integrating language-based cultural heritage activities helps children connect emotionally with their culture while supporting linguistic development in their mother tongue (Sumartana et. al., 2025). These align with the social learning dimensions of TVET, where teamwork, cultural literacy, and community engagement are central (ILO, 2020). Integrating such activities into vocational programs could therefore strengthen students’ social-emotional and intercultural competencies.

Activities related to society and festivals, such as lantern-making and dragon dancing, also showed strong agreement (61.29%–74.19%). Such activities not only enhance children’s creativity and teamwork but also

introduce social values, cooperation, and respect for traditions (Huang et al., 2022). These findings align with UNESCO's (2023) call to embed local cultural elements into early childhood education to promote sustainability and community identity.

On the other hand, science- and health-related ICH activities such as herbal knowledge, food preparation, or traditional games recorded comparatively lower frequencies (12.90%–22.58%). This may be due to limited teacher expertise or resources to transform such heritage knowledge into child-appropriate learning activities (Rahman et al., 2023). Nonetheless, these aspects hold potential for future integration, particularly through simple explorations of natural materials, food culture, or traditional health practices that can foster inquiry-based learning (Nguyen & Pham, 2021).

Overall, the findings reveal that artistic and language-based ICH activities are perceived as the most suitable for kindergarten settings. These forms of cultural expression align with young children's learning styles and support holistic development, including cognitive, socio-emotional, and aesthetic growth. Teachers are encouraged to incorporate these activities in creative, play-based formats that allow children to experience and value their cultural heritage from an early age.

The challenges that teachers face while integrating ICH into early childhood settings

The findings in Table 6 reveal several key challenges teachers face when integrating ICH elements into early childhood education. The most frequently reported challenge was complex course resources (77.4%), followed by difficulty in integration (71%), insufficient material support (64.5%), and low professional competence or limited teacher expertise (61.3%). A smaller percentage (12.9%) indicated other issues such as time constraints or lack of administrative support.

The high percentage for complex course resources suggests that teachers perceive ICH materials and content as difficult to access, adapt, or simplify for young learners. Traditional knowledge and cultural expressions often exist in oral or community-based forms rather than structured educational materials (Huang et al., 2022). Consequently, teachers struggle to translate these cultural elements into age-appropriate pedagogical content. According to Rahman et al. (2023), many preschool teachers lack access to structured guidelines or official curriculum frameworks that incorporate ICH, leading to uncertainty in lesson planning and implementation.

The challenge of integration difficulty (71%) further underscores that embedding ICH into daily teaching practices requires not only creative adaptation but also alignment with learning objectives and developmental standards (Lee et al., 2022). Teachers often find it challenging to balance cultural content with mandated academic curricula, especially in early childhood programs that prioritise literacy, numeracy, and social skills (Nguyen & Pham, 2021). Additionally, some traditional cultural activities involve tools, processes, or symbolic meanings that are too complex for kindergarten-aged children to grasp without modification (Li & Tan, 2022).

A significant number of teachers (64.5%) also cited insufficient material support, indicating a lack of teaching aids, financial resources, or community partnerships necessary for cultural activities. Integrating ICH often requires collaboration with artisans, elders, or local cultural practitioners, yet such partnerships may not be formally supported by the school system (Yen & Wang, 2023). UNESCO (2023) emphasises that the sustainable implementation of ICH in education depends on cross-sector collaboration and the provision of appropriate teaching materials and training resources.

Moreover, teacher professional competence was identified as a critical issue (61.3%). Many early childhood educators may lack the cultural knowledge or pedagogical skills required to teach heritage-based content effectively (Chen & Wong, 2021). This finding echoes previous research indicating that teacher training programs rarely include modules on cultural heritage education or traditional knowledge systems (Zhang & Chen, 2021). Without adequate preparation, teachers may feel unconfident or underqualified to lead ICH-related learning experiences.

Overall, these findings suggest that the successful integration of ICH in early childhood settings is hindered by curricular complexity, limited resources, and insufficient teacher preparation. Addressing these barriers

requires policy-level support, capacity-building initiatives, and community involvement to ensure that teachers are well-equipped to transmit cultural knowledge in meaningful, child-centred ways.

Table 6: Challenges in Integrating ICH

Items	f	%
Complex course resources	24	77.4
The teacher's professional level is not high	19	61.3
Difficulty in integration	22	71
Insufficient material support	20	64.5
Other	4	12.9
Total	89	100

The difference in kindergarten teachers' and parents' perceptions of integrating Intangible Cultural Heritage (ICH) into early childhood education based on their demographics

Based on the findings in Table 7, the results of the Kruskal-Wallis and Mann-Whitney tests indicate that there is no significant difference in kindergarten teachers' perceptions of integrating Intangible Cultural Heritage (ICH) into early childhood education across demographic groups ($p > 0.05$ for all variables). Effect-size analysis confirmed that these group differences were negligible. Teaching experience showed $\epsilon^2 \approx 0.000$, teaching performance $\epsilon^2 \approx 0.000$, and age yielded a rank-biserial correlation $r = 0.008$ (95% CI [-0.41, 0.42]). The Kruskal-Wallis test was applied to factors such as teaching experience and teaching performance level, while the Mann-Whitney test was used to examine age differences in teachers' perceptions toward the importance or implementation of ICH in early education.

Table 7: Teachers' perceptions of integrating

Demographics	N	Mean rank	Kruskal-Wallis H/ Mann-Whitney U	p
Teaching experiences	5 years and below	9	0.496	0.78
	6-10 years	19		
	11-15 years	2		
Teaching performance	0 level	9	2.782	0.43
	Level 1	1		
	Level 2	18		
	Level 3	3		
Age	21-30 years old	14	118.000	0.97
	31-40 years old	17		

* Significant differences at $p < .05$

From a TVET perspective, these findings indicate that efforts to integrate ICH can be implemented holistically, without the need to tailor approaches based on teachers' demographic backgrounds. All teachers appear equally ready and maintain a positive, consistent perception of incorporating elements of cultural heritage as a proactive strategy to strengthen education and soft skills from the early stages of childhood learning.

Based on the findings in Table 8, the Kruskal-Wallis test indicates one significant difference in parents' perceptions of integrating Intangible Cultural Heritage (ICH) into early childhood education, specifically in terms of academic qualifications ($p = 0.05$). The corresponding effect size was small ($\epsilon^2 \approx 0.03$, approximate pending exact H), indicating limited practical significance despite the statistical difference. However, no significant differences were found for parents' age ($p = 0.11$), occupation ($p = 0.55$), or household income ($p = 0.76$).

These results suggest that educational background plays an important role in shaping parents' understanding and attitudes toward integrating ICH into early education. Parents with higher levels of education may be more aware

of cultural preservation and the importance of transmitting intangible heritage to children from a young age. This finding aligns with the view that exposure to cultural knowledge and appreciation often increases with education level, as individuals with more academic experience tend to have broader access to information about cultural values and identity.

Conversely, the lack of significant differences by age, occupation, and income indicates that awareness of the value of ICH is relatively consistent across demographic groups. This implies that parents, regardless of their socio-economic background, generally share a similar appreciation of the importance of embedding cultural heritage elements in early childhood education.

From a TVET perspective, these findings highlight that integrating ICH can serve as a proactive strategy for nurturing soft skills, creativity, and cultural identity from an early age. Embedding ICH into early education not only fosters holistic child development but also lays the foundation for cultivating a future workforce that values culture-based skills, aligning with TVET's goal of producing culturally grounded and competent individuals.

Implications for Practice and Policy

Taken together, the results point to several areas where practical and policy-level action is required if ICH integration is to move beyond isolated activities and become a meaningful educational practice. At the classroom level, the findings highlight the need for developmentally appropriate ICH resources that teachers can readily access and adapt. Many heritage elements are embedded in community practices or rely on specialised tools and symbolic knowledge, which makes them difficult for teachers to translate into activities suitable for young children. Developing structured resource guides, simple activity templates, and age-appropriate adaptations of local heritage could help reduce teachers' burden and improve implementation feasibility.

The results also indicate a clear need for more systematic professional development. Teachers expressed strong interest in ICH integration, yet many reported feeling inadequately prepared. Training programmes that combine cultural knowledge, pedagogical strategies, and practical guidance could help teachers work confidently with heritage content. This could be incorporated into in-service workshops or school-based professional learning communities, ideally involving collaboration with local cultural practitioners.

At the institutional level, the limited availability of materials and resources suggests that schools require stronger administrative and financial support. This may include allocating specific budget lines for ICH-related activities, building partnerships with local museums, cultural centres, or heritage bearers, and establishing mechanisms for regular communication between schools and community stakeholders. Such collaboration would not only enrich the learning experience but also help preserve local heritage practices sustainably.

From a broader policy perspective, the findings underscore the importance of cross-sector coordination. While ICH is often promoted as a cultural priority at national or provincial levels, its integration into early childhood education still depends heavily on school-level initiative. More explicit policy guidance—such as curriculum frameworks, resource repositories, or teacher training standards—could provide clearer direction for schools and help bridge the perception–practice gap identified in this study. Given the alignment between early ICH activities and the transversal competencies emphasised in TVET, supporting ICH integration in early childhood education may also contribute to a more coherent, lifelong learning pathway that connects cultural identity with skills for future work and life.

CONCLUSION AND FUTURE WORKS

The findings of this study reflect a clear and consistent message: teachers and parents recognise the value of introducing Intangible Cultural Heritage (ICH) into early childhood education, particularly through forms of heritage that young children can access and relate to, such as traditional crafts, storytelling, songs, and community-based cultural activities. These heritage forms are understood not only as expressions of cultural identity but also as opportunities for developing early creativity, fine-motor coordination, communication, and social awareness—skills that later become relevant within the broader continuum of lifelong learning, including pathways associated with Technical and Vocational Education and Training (TVET).

At the same time, the data show that positive attitudes alone are not enough to ensure regular or extensive use of ICH in classroom practice. Actual implementation remains limited, and the barriers identified by teachers—complexity of heritage content, a lack of suitable teaching resources, insufficient institutional support, and limited confidence or expertise—suggest that the challenge is largely structural rather than conceptual. These issues indicate that teachers are expected to integrate ICH but are not always equipped with the knowledge, time, or materials to do so effectively.

The demographic analyses offer additional insight. Teachers' perceptions were generally stable across age, teaching experience, and professional performance level, suggesting shared values within the participating institution or a broader sense of responsibility toward cultural education. Among parents, only academic qualification appeared to influence attitudes toward ICH, with higher levels of education associated with stronger support. This pattern suggests that understanding of heritage-based learning may be shaped, at least in part, by broader educational exposure.

Taken together, the study highlights both the promise and the practical constraints of ICH integration in early childhood settings. ICH has clear potential to strengthen cultural continuity and support early skill formation, yet meaningful implementation requires more than goodwill. Improving resource availability, offering structured teacher training, and encouraging collaboration among schools, families, and cultural practitioners are essential next steps. With these supports in place, ICH can become a sustainable part of early childhood education, contributing not only to cultural preservation but also to the development of dispositions and abilities that carry forward into later learning and vocational pathways.

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