INNOVATIVE LEARNING MANAGEMENT THROUGH COMMUNITY IDENTITY: A CASE STUDY OF THE "KRU RAK THIN" PROJECT IN EARLY CHILDHOOD EDUCATION

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ABSTRACT

This study examined the development and implementation of an innovative learning management based on community identity within the "Kru Rak Thin" Project for early childhood education in Thailand. The objectives were to (1) investigate local community identities, (2) develop learning innovations based on local community identities, (3) implement these innovations in early childhood classrooms, and (4) reflect on lessons learned. A research and development approach combined with participatory action research was employed across four phases: investigation of community identity, development of a community identity-based learning innovaion, classroom implementation, and reflection. Data were collected through interviews, observations, and focus group discussions with community scholars, teachers, and administrators across 29 schools in four provinces. Student teachers identified 26 community identity elements (e.g., Hmong embroidery, traditional weaving, local languages) and developed 31 innovations, including lesson plans, big storybooks, and educational games. Expert evaluations rated 93.5% of these innovations as "good," while two were "adequate." Classroom implementation showed that all kindergarten students achieved learning outcomes above 80%. The findings highlight that integrating community identity into early childhood education fosters cultural sustainability, enhances learning achievement, and strengthens collaboration among schools, communities, and future teachers.

Keywords: innovative learning, community identity, early childhood

INTRODUCTION

1. Background and Context of the Study

Education in Thailand, particularly in rural and remote areas, continues to face challenges in creating learning experiences that are both meaningful and relevant to children's everyday lives. Although the national curriculum provides a common framework, much of its content remains abstract and disconnected from community realities. For many children in rural schools, lessons often appear distant from their environments, reducing engagement, motivation, and achievement. Scholars have emphasized that education is most effective when

it connects with learners' social and cultural contexts (Wenger, 1998; Banks & Banks, 2006; Ladson-Billings, 1995; Gay, 2010). These perspectives suggest that community identity—including traditions, practices, and local resources—can serve as a foundation for effective and equitable teaching, especially in early childhood, when learning is shaped by authentic and familiar experiences.

To respond to these challenges, the "Kru Rak Thin" Project was established with the support of Thailand's Equitable Education Fund (EEF) and partner universities. Pibulsongkram Rajabhat University was one of the institutions selected by EEF to join the project, with responsibility for preparing pre-service teachers in early childhood education across four provinces in the Lower Northern region. The project's goal is to reduce educational inequality by producing teachers who are academically competent, committed to long-term service in rural schools, and equipped to integrate community identity into classroom practice.

The project was carried out in Phitsanulok, Phetchabun, Tak, and Uttaradit, provinces that represent both highland and lowland areas and are home to diverse ethnic groups. The study of community identity in these areas revealed elements such as Hmong and Karen weaving, sticky rice traditions, herbal medicine, local dialects, indigenous rituals, and agricultural products like bananas and avocados. These features demonstrate that community identity is not limited to cultural expressions but also includes natural resources, food, and everyday practices that shape community life. Through collaboration with community scholars, school administrators, and local teachers, student teachers documented these identities and transformed them into teaching resources. This participatory approach made the Kru Rak Thin Project a compelling case for exploring how learning innovations based on community identity can be systematically developed and applied in early childhood classrooms.

2. Literature Review

The conceptual foundation for this study lies in theories of identity and pedagogy. Wenger (1998) introduced the idea of communities of practice, highlighting that identity is built and reinforced through participation in shared practices. In multicultural education, Banks and Banks (2006) argued that recognizing cultural identity promotes fairness and inclusion. Ladson-Billings (1995) and Gay (2010) advanced the framework of culturally relevant pedagogy, showing that when school learning connects to learners' cultural backgrounds, it enhances engagement, motivation, and academic success.

Despite this theoretical consensus, applying these principles has remained a challenge. International studies show that identity and local culture are often marginalized in mainstream education. Kanu (2007) found that indigenous perspectives were frequently absent in formal curricula. Nieto (2010) argued that many multicultural approaches remain superficial, while Booth and Ainscow (2011) stressed that genuine inclusion requires aligning school practices with community contexts—something that is often limited, especially in rural schools. These studies highlight the global difficulty of embedding community identity into classroom practice in a systematic way.

In Thailand, similar concerns have been reported. Tantayanubut (2007) and Thanomchat and Anussarakij (2014) highlighted the role of local wisdom in preparing learners for social change and strengthening national identity. Thongthew (2012) stressed that community identity must be central to inclusive reform. However, Itsawaraphan (2012) found that rural schools continue to depend heavily on standardized curricula and often neglect community knowledge. Suwannakul (2017) noted that while teachers value community identity, they lack practical tools to implement it, especially in early childhood education.

More recently, Phongsiri (2020) observed that pre-service teacher education programs still do not systematically prepare future teachers to integrate community identity into classroom instruction.

In summary, the literature demonstrates that while the importance of community identity in education is widely acknowledged (Wenger, 1998; Banks & Banks, 2006; Ladson-Billings, 1995; Gay, 2010), its actual application remains limited both internationally (Kanu, 2007; Nieto, 2010; Booth & Ainscow, 2011) and in Thailand (Tantayanubut, 2007; Thanomchat & Anussarakij, 2014; Thongthew, 2012; Itsawaraphan, 2012; Suwannakul, 2017; Phongsiri, 2020). Few studies have gone beyond emphasizing its importance to the practical development and testing of learning innovations based on community identity, particularly in early childhood education. This research seeks to fill that gap.

This study aims to develop and implement an innovative learning management based on community identity. It focuses on early childhood education students from the first cohort of the "Kru Rak Thin" Project, who will return to be teachers in the schools in their communities. By integrating community identity into education, the goal of the research is to support community-centered, sustainable educational growth and improve student-teacher preparation.

METHODOLOGY

This study used a mixed-method approach and a research and development (R&D) design supported by participatory action research (PAR) principles. A community identity inquiry, a community identity-based learning innovation, its implementation in early childhood classrooms, and a reflection and synthesis of the lessons learned were the four main parts of the process. Every stage was planned to guarantee active cooperation between community people, school staff, student instructors, and researchers. The methods and tools utilized in Phase 1 are described in depth in the section that follows.

Phase 1: Investigation of Community Identity

This phase used a participatory action research methodology to explore elements of community identity. The strategy emphasized collaboration among researchers, student teachers, community scholars, and school administrators in identifying significant characteristics of community identity within each community.

1.1 Population and Sample

The population comprised two groups: (1) community scholars, and (2) educational personnel, including school administrators, early childhood teachers, and subject teachers. The study was conducted in 29 schools located in 27 sub-districts across four provinces (Phitsanulok, Phetchabun, Tak, and Uttaradit). Purposive sampling was employed to ensure balanced representation from both community scholars and educational personnel. In each community, two community scholars were selected (totalling 58 individuals), while three educational staff members were selected from each school (totalling 87 individuals). Although the combined sample size of 145 participants is relatively large for qualitative research, it was intentionally designed to capture the diversity of community scholars across four culturally distinct provinces. This approach is consistent with the participatory nature of the study and ensures that the identification of community identity reflects multiple perspectives and community consensus.

1.2 Research Instruments
Two primary instruments were employed to investigate community identity and its integration into early childhood learning: a semi-structured interview protocol and a focus group discussion guide. Both instruments were designed to capture rich qualitative data from multiple stakeholders, including community scholars, school administrators, and teachers, and were validated by educational experts prior to use. The development of these instruments was guided by Wenger's (1998) theory of communities of practice, which emphasizes the construction of identity through social participation, and adapted from prior cultural identity research by Suwannakul (2017), who highlighted the importance of integrating local wisdom into educational contexts.

1.2.1   Semi-Structured Interview Protocol
The interview protocol was administered to community scholars in each community. It was designed to elicit in-depth narratives of community identity through open-ended questions across the following dimensions:
1)   Historical background and development of local wisdom
      "Can you describe the origins and history of this community identity?"
      "How has this knowledge or practice evolved over time?"
2) Processes, techniques, and unique characteristics
      "What are the special methods or techniques involved in this identity?"
      "In what ways is this identity different from those of other communities?"
3) Transmission and preservation of identity
      "How is this identity passed on to younger generations?"
      "Who are the key transmitters and supporters in this process?"
4) Current status and future potential
      "What challenges exist in maintaining this identity today?"
      "How could this identity be further developed or applied in the future?"

These questions provided comprehensive insights into the origins, characteristics, and sustainability of community identity, which later informed the thematic analysis and identification of 26 identity elements.

1.2.2 Focus Group Discussion Guide
Focus group discussions (FGDs) were organized with school administrators, early childhood teachers, and community scholars to validate the interview findings and assess the feasibility of applying community identities in classroom practice. The discussion guide consisted of two main sections:
1) Current practices of identity-based learning
      "What local identities are currently present in your community?"
      "Has your school incorporated these identities into classroom learning? If yes, how?"
      "What factors influence the decision to use or not use community identity in teaching?"
      "What challenges have you encountered when applying community identity in classrooms?"
2) Needs and future directions
      "Which identity do you think should be prioritized for classroom use, and why?"
      "What kinds of support or resources are needed to implement identity-based learning effectively?"
      "What forms of culturally grounded learning innovations would be most suitable for early childhood education?"

The FGDs allowed for triangulation of perspectives across stakeholder groups and facilitated community consensus on which identities were most relevant, feasible, and developmentally appropriate for early childhood learning.

By combining individual narratives from interviews with collective validation from FGDs, the study ensured that the final selection of 26 community identity elements was both community authentic and pedagogically sound. These results directly informed the development of 31 learning innovations based on community identity, as reported in the Results section.

1.3 Data Collection

Data collection began with a review and synthesis of existing literature on community identity and education, which informed the conceptual framework of the study. Researchers and student teachers then explored contextual data from the "Kru Rak Thin" Project's initial community engagement phase. Two instruments were employed: (1) semi-structured interviews with community scholars to investigate the history, development, unique characteristics, and transmission of community identity; and (2) focus group discussions with school administrators, teachers, and community scholars to validate findings and explore current practices, challenges, and needs in identity-based education. Field observations complemented these instruments, providing additional contextual detail. The data collected from these multiple sources were analyzed and synthesized based on three criteria: community uniqueness, relevance to early childhood education, and collective confirmation by community members and school personnel. This process ensured that the identification of community identity was both community authentic and pedagogically appropriate.

1.4 Data Analysis

Qualitative data collected from semi-structured interviews with community scholars and focus group discussions with school administrators and teachers were analyzed thematically. The analysis followed three main criteria: (1) community uniqueness, (2) relevance to early childhood education, and (3) collective confirmation by community members and school staff. Coding and categorization of the data resulted in the identification of 26 distinct elements of community identity. These identity elements were subsequently synthesized and used as the foundation for designing 31 learning innovations based on community identity. This analytical process ensured that the innovations were both culturally authentic and pedagogically appropriate, directly linking the qualitative evidence to the development of practical instructional tools.

Phase 2: Development of a Community Identity-Based Learning Innovation

This phase focused on designing a learning innovation rooted in community identity, based on synthesized findings from Phase 1. The process emphasized collaboration among student teachers, community stakeholders, and educational professionals in alignment with participatory action research principles.

2.1 Population and Sample

The population consisted of three key stakeholder groups from 29 schools across 27 sub-districts in the four target provinces: (a) community scholars, (b) mentor teachers, and (c) early childhood education specialists. The sample included one representative from each group per school, selected through purposive sampling, totalling 87 participants.

2.2 Research Instruments

Two main instruments were used in this phase. First, the learning innovation itself—developed by student teachers—comprised a culturally grounded learning management plan, a big storybook reflecting local identity, and an educational game.

Second, an evaluation instrument was created to assess the quality and appropriateness of the innovation. This evaluation used a three-level rating scale: 3 indicating "good," 2 for "adequate," and 1 for "needs improvement."

2.3 Data Collection

Initially, student teachers drafted the learning innovations based on data from Phase 1. Focus group discussions were then held with community scholars, mentor teachers, and early childhood specialists to review and assess the innovation. Feedback from these sessions guided revisions to ensure cultural relevance, pedagogical appropriateness, and contextual alignment before the innovations were piloted in schools.

2.4 Data Analysis

Quantitative data from the evaluation forms were analyzed using descriptive statistics. Mean scores and standard deviations were calculated to interpret the quality of the innovation, using the following criteria: a mean score of 2.51–3.00 indicated "good" quality; 1.51–2.49 signified "adequate" quality; and 1.00–1.50 denoted "needs improvement."

Phase 3: Implementation of the Community Identity-Based Learning Innovation

In this phase, student teachers implemented the developed learning innovation in actual early childhood classrooms, as part of their practical training under the "Kru Rak Thin" Project. This stage aimed to assess the effectiveness of the innovation in promoting meaningful learning through community-based content.

3.1 Population and Sample

The study population consisted of kindergarten students from 29 schools located in 27 sub-districts across four provinces: Phitsanulok, Phetchabun, Tak, and Uttaradit. The sample was selected through purposive sampling and included all students in the classrooms where the innovation was implemented during the first semester of the 2022 academic year.

3.2 Research Instruments

Two main instruments were used: (1) the learning innovation package—comprising a learning management plan, a big storybook, and an educational game—implemented as an integrated learning module; and (2) a student learning assessment instrument using a three-point rating scale, where a score of 3 indicated "good," 2 denoted "adequate," and 1 signified "needs improvement."

3.3 Data Collection

Data collection proceeded in three steps. First, student teachers explained the objectives of the learning innovation to participating students. Next, the instructional session was conducted according to the developed plan. Lastly, students' learning outcomes were assessed immediately following the activity. Mentor teachers and supervising researchers observed the sessions to ensure consistency and to provide support if needed.

3.4 Data Analysis

Scores from the student learning assessments were analyzed using descriptive statistics. The mean and standard deviation were calculated and interpreted using the following criteria: a mean score of 2.51–3.00 was considered "good," 1.51–2.49 was "adequate," and 1.00–1.50 indicated "needs improvement." Additionally, mean scores were converted into percentages, with scores of 80% or above considered successful. This process provides a quantitative measure of learning outcomes and a basis for further reflection.

Phase 4: Reflection on the Implementation of the Community Identity-Based Learning Innovation

The final step emphasized reflective practice as an essential component of the participatory action research approach. It aimed at collecting feedback from all stakeholders on the implementation of the community identity-based learning innovation and at identifying opportunities for future improvement. A reflective forum was set up in order to promote knowledge exchange and collaborative analysis of the experience.

4.1 Population and Sample

The population included mentor teachers, community scholars, and student teachers from the "Kru Rak Thin" Project, who were involved with 29 schools in 27 sub-districts across the provinces of Phitsanulok, Phetchabun, Tak, and Uttaradit. Those who were directly involved in the implementation process during the first semester of the 2022 academic year comprised the sample, which was purposefully selected.

4.2 Research Instrument

The student teachers produced a reflective activity record form to document their implementation experiences and learnings. The form included arranged prompts to help with individual and group reflections.

4.3 Data Collection

To highlight the idea and the implementation process, researchers and student teachers worked together to organize an exhibition. The event included oral presentations, interactive displays, and a discussion forum where students, mentor teachers, school administrators, and community scholars exchanged ideas, faced obstacles, and disputed findings. Several perspectives were able to contribute to the understanding of the innovation's advantages and limitations through this participatory reflection.

4.4 Data Analysis

Thematic analysis was used to examine the qualitative information obtained from forum discussions and reflective records. Important elements were combined to create a coherent story that included common understandings, recurrent difficulties, and recommendations for enhancing future procedures. In addition to evaluating the innovation's efficacy in its practical setting, this reflection phase provided insightful input that informed the continued advancement of community identity-based learning practices in early childhood education.

RESULTS

1. Results of the Study on Students' Community Identity

This phase focused on exploring and identifying community identity through interviews with community scholars and focus group discussions with school administrators and teachers. The analysis revealed several patterns of community knowledge and practices that could serve as meaningful foundations for early childhood learning.

1.1 Thematic Findings

Theme 1: Local Crafts and Material Practices

Community scholars emphasized weaving, embroidery, and bamboo work as distinctive aspects of their identity. A teacher from Phetchabun stated, "Children are very curious about Hmong embroidery because they see it every day in their families." Likewise, a community elder in Tak province noted, "Karen weaving is not just a fabric; it carries the spirit of our ancestors and should be taught to the younger generation."

Theme 2: Local Foods and Agricultural Practices

Local agricultural products and foods were also highlighted as essential identity elements. Sticky rice, herbal medicine, bananas, and avocado cultivation were frequently mentioned. A teacher explained, "Children learn best when they use things close to their lives—like bamboo shoots or bananas from their own community."

Theme 3: Languages and Rituals

Indigenous languages and rituals were identified as critical in preserving community identity. A teacher in Tak province noted, "Using the Karen language in class makes children proud of themselves and more confident to speak." Similarly, a participant in Uttaradit remarked, "If children forget their local dialects, they will lose their connection to the community."

1.2 Integration and Consensus

While many forms of community identity were identified, focus group discussions confirmed that not all were suitable for direct integration into early childhood classrooms. To ensure both authenticity and relevance, three criteria were applied:

1.2.1 Significance within the community context
1.2.2 Relevance to early childhood education
1.2.3 Collective confirmation by community members and school staff

Based on these criteria, 26 elements of community identity were validated. These served as the basis for developing 31 learning innovations based on community identity, such as lesson plans, big storybooks, and educational games. The consolidated results are presented in Table 1.

Table 1

Community identity and selected learning innovations developed by student teachers in 31 schools across four provinces

No.	School	Community Identity	Name of Learning Innovation
1	Ban Doi Nam Piang Din, Phetchabun	Hmong embroidery	The Beautiful Embroidery
2	Ban Sadao Phong, Phetchabun	Khao Kho Royal Palace	Khao Kho Royal Palace
3	Ban Huai Khon Hat, Phetchabun	Phra That Pha Sorn Kaew Temple	Phra That Pha Sorn Kaew
4	Ban Khwad Namman, Phitsanulok	Handwoven textiles	Our Local Weaving
5	Ban Hin Ngon, Phetchabun	Grass brooms	Community Broom
6	Ban San Charoen, Phetchabun	Bulrush plant	Joyful Bulrush
7	Ban Rai Teen Tok, Uttaradit	Bamboo rice steamer weaving	Traditional Steamer
8	Ban Umphang, Tak	Bananas	Amazing Banana
9	Thairath Wittaya 106, Uttaradit	Lan Chang loom weaving	Lan Chang Fabric
10	Ban Na Nong, Phitsanulok	Nam Krathon stream	Nam Krathon Waterway
11	Ban Mae Klong Kao, Tak	Thai-style crystal rice cakes	Crystal Rice Cake for the Future
12	Ban Tat Kha Phatthana, Phetchabun	Bamboo shoots	Our Bamboo Shoots
13	Yan Wisit, Tak	Karen weaving	Joyful Karen Cloth
14	Ban Pro Phado, Tak	Karen weaving	My Woven Cloth
15	Khao Kho Kindergarten, Phetchabun	Local languages	Languages of Four Tribes

Table 1

Community identity and selected learning innovations developed by student teachers in 31 schools across four provinces

No.	School	Community Identity	Name of Learning Innovation
16	Ban Sap Phutsa, Phetchabun	Sheep	Curious Little Sheep
17	Nam Nao Kindergarten, Phetchabun	"Phaya Luem Kaeng" sticky rice	The Legendary Bamboo Rice
18	Khun Huai Tak, Tak	Hmong costume	My Hmong Outfit
19	Ban Chedi Ko, Tak	Avocado	Avocado Adventures
20	Ban Na Yao, Phetchabun	Wind turbines	Local Wind Power
21	Huai Phlu, Phitsanulok	Floral pattern weaving	Flower-Patterned Fabric
22	Ban Chedi Ko, Tak	Avocado	Little Avocado
23	Ban Mae Tao, Tak	Tai Yai tribal costume	Tai Yai Costume
24	Ban Suan Miang, Phitsanulok	Bamboo	The Magic of Bamboo
25	Ban Khun Nam Khap, Phitsanulok	Hmong herbal medicine	Hmong Herbal Wisdom
26	Ban Sap Sawang, Phetchabun	"Phaya Luem Kaeng" sticky rice	The Bamboo Rice of Phaya
27	Ban Huai Khom, Uttaradit	Bananas	Bananas Everywhere
28	Ban Sakaeo, Phetchabun	Sunflowers	Sunflower Stories
29	Sirirat Phatthana, Phitsanulok	Stone crabs	The Stone Crab
30	Ban Tham Mongkhon Chai, Phetchabun	Bamboo weaving	Bamboo Weaving Wonders
31	Ban Khun Nam Khap, Phitsanulok	Hmong herbal medicine	Hmong Herbal Wisdom

Table 1 shows how diverse elements of community identity were identified across four provinces and transformed into learning innovations by student teachers. These innovations reflect the distinctive characteristics of community contexts and provide developmentally appropriate tools for early childhood education.

2. Results of the Development of Community Identity-Based Learning Innovations by Student Teachers

The student teachers used selected elements of local community identity, identified in Phase 1, to design and develop learning innovations tailored to their schools. The innovation consisted of three components: a lesson plan, a big storybook, and an educational game. The innovations were assessed by educational experts using a three-point scale, with a score of 3 indicating "good," a score of 2 indicating "adequate," and a score of 1 indicating "needs improvement." The results of the assessment are presented in Table 2.

Table 2

Quality Assessment of Community Identity-Based Learning Innovations Developed by Student Teachers

No.	Learning Innovations											
	Learning Plan			Big Storybook			Educational Game			Overall		
	$\overline{X}$	S.D.	Level	$\overline{X}$	S.D.	Level	$\overline{X}$	S.D.	Level	$\overline{X}$	S.D.	Level
1	2.83	0.38	Good	2.90	0.31	Good	2.80	0.41	Good	2.84	0.36	Good
2	2.87	0.35	Good	2.90	0.31	Good	2.83	0.38	Good	2.87	0.34	Good
3	2.87	0.35	Good	2.83	0.38	Good	2.80	0.41	Good	2.83	0.37	Good
4	2.77	0.43	Good	2.83	0.38	Good	2.73	0.45	Good	2.78	0.42	Good
5	2.90	0.31	Good	2.87	0.35	Good	2.83	0.38	Good	2.87	0.34	Good
6	2.93	0.25	Good	2.97	0.18	Good	2.90	0.31	Good	2.93	0.25	Good
7	2.53	0.51	Good	2.60	0.5	Good	2.57	0.5	Good	2.57	0.50	Good
8	2.90	0.31	Good	2.97	0.18	Good	2.87	0.35	Good	2.91	0.29	Good
9	2.97	0.18	Good	2.93	0.25	Good	2.90	0.31	Good	2.93	0.25	Good
10	2.67	0.48	Good	2.57	0.50	Good	2.60	0.50	Good	2.61	0.49	Good
11	2.77	0.43	Good	2.70	0.47	Good	2.67	0.48	Good	2.71	0.46	Good
12	2.33	0.48	Adequate	2.40	0.50	Adequate	2.37	0.49	Adequate	2.37	0.48	Adequate
13	2.73	0.45	Good	2.83	0.38	Good	2.80	0.41	Good	2.79	0.41	Good
14	2.87	0.35	Good	2.90	0.31	Good	2.83	0.38	Good	2.87	0.34	Good
15	2.83	0.38	Good	2.90	0.31	Good	2.80	0.41	Good	2.84	0.36	Good
16	2.87	0.35	Good	2.83	0.38	Good	2.80	0.41	Good	2.83	0.37	Good
17	2.77	0.43	Good	2.93	0.25	Good	2.87	0.35	Good	2.86	0.35	Good
18	2.77	0.43	Good	2.63	0.49	Good	2.77	0.43	Good	2.72	0.45	Good
19	2.90	0.31	Good	2.97	0.18	Good	2.93	0.25	Good	2.93	0.25	Good
20	2.80	0.41	Good	2.90	0.31	Good	2.77	0.43	Good	2.82	0.38	Good
21	2.73	0.45	Good	2.77	0.43	Good	2.67	0.48	Good	2.72	0.45	Good
22	2.90	0.31	Good	2.90	0.31	Good	2.87	0.35	Good	2.89	0.32	Good
23	2.57	0.50	Good	2.67	0.48	Good	2.63	0.49	Good	2.62	0.49	Good
24	1.63	0.61	Adequate	1.77	0.57	Adequate	1.70	0.60	Adequate	1.70	0.59	Adequate
25	2.73	0.45	Good	2.90	0.31	Good	2.77	0.43	Good	2.80	0.40	Good
26	2.80	0.41	Good	2.93	0.25	Good	2.83	0.38	Good	2.86	0.35	Good
27	2.67	0.48	Good	2.77	0.43	Good	2.73	0.45	Good	2.72	0.45	Good
28	2.77	0.43	Good	2.87	0.35	Good	2.80	0.41	Good	2.81	0.39	Good
29	2.67	0.48	Good	2.80	0.41	Good	2.77	0.43	Good	2.74	0.44	Good
30	2.77	0.43	Good	2.87	0.35	Good	2.83	0.38	Good	2.82	0.38	Good
31	2.70	0.47	Good	2.87	0.35	Good	2.73	0.45	Good	2.77	0.43	Good

The results from Table *3* show that the learning innovations developed by student teachers mostly have a high level of quality. Specifically, 29 out of 31 innovations *(93.5%)* received mean scores within the *"Good"* range *(2.51–3.00)*, while the remaining two *(6.5%)* were rated as *"Adequate"* *(1.51–2.50)*. The assessment covered three components: the lesson plan, the big storybook, and educational games, and all were found to be at adequate or above

level. Scores on these components were fairly consistent, indicating that students were able to effectively integrate their community identity with a variety of teaching methods. The highest overall mean score recorded was 3.00, and the lowest was 1.70. These results suggest that the participatory development process, which involved collaboration with mentor teachers and community scholars, enabled the student teachers to create meaningful, culturally grounded learning innovations that meet pedagogical standards and support the goals of early childhood education.

3. Results of the Implementation of Community Identity-Based Learning Innovations by Student Teachers

Student teachers implemented their developed learning innovations—which included a learning management plan, a big storybook, and an educational game—in early childhood classrooms. The effectiveness of these innovations was assessed through student learning outcomes. Table 3 presents the results of the implementation across 31 schools in the first cohort of the "Kru Rak Thin" Project in the Early Childhood Education Program at Pibulsongkram Rajabhat University.

Table 3
Student Learning Outcomes from the Implementation of Community Identity-Based Learning Innovations

No.	School	Number of Students	Mean Score	Percentage
1	Ban Doi Nam Piang Din	24	2.91	97.00%
2	Ban Sadao Phong	21	2.90	96.66%
3	Ban Huai Khon Hat	23	2.48	82.66%
4	Ban Khwad Namman	4	2.80	93.32%
5	Ban Hin Ngon	4	2.95	98.32%
6	Ban San Charoen	10	2.91	96.99%
7	Ban Rai Teen Tok	5	2.86	95.32%
8	Ban Umphang	34	2.88	95.99%
9	Thairath Wittaya 106	10	3.00	100.00%
10	Ban Na Nong	13	2.47	82.33%
11	Ban Mae Klong Kao	16	2.90	96.66%
12	Ban Tat Kha Phatthana	12	2.88	95.99%
13	Yan Wisit	12	2.75	91.66%
14	Ban Pro Phado	11	3.00	100.00%
15	Khao Kho Kindergarten	30	2.87	95.66%
16	Ban Sap Phutsa	14	2.89	96.32%
17	Nam Nao Kindergarten	21	2.90	96.66%
18	Khun Huai Tak	23	2.83	94.32%
19	Ban Chedi Ko	31	2.92	97.32%
20	Ban Na Yao	24	2.52	83.99%
21	Huai Phlu	25	2.75	91.66%
22	Ban Chedi Ko	30	2.65	88.32%
23	Ban Mae Tao	31	2.90	96. 66%

No.	School	Number of Students	Mean Score	Percentage
24	Ban Suan Miang	18	2.59	86.32%
25	Ban Khun Nam Khap	10	2.98	99.32%
26	Ban Sap Sawang	22	2.84	94.66%
27	Ban Huai Khom	25	2.82	93.99%
28	Ban Sakaeo	6	2.50	83.33%
29	Sirirat Phatthana	5	3.00	100.00%
30	Ban Tham Mongkhon Chai	12	2.97	98.99%
31	Ban Khun Nam Khap	44	2.60	86.66%

The results indicate that all schools achieved an average student learning outcome of over 80% , demonstrating the effectiveness of the community identity- based learning innovations in promoting meaningful learning among kindergarten students.

4. Results of Reflective Learning from the Implementation of Community Identity-Based Learning Innovations by Student Teachers in the "Kru Rak Thin" Project

This section presents reflective learning outcomes from the implementation of the Community Identity-Based Learning Innovation, which was collected from multiple stakeholders, including school administrators, community scholars, mentor teachers, and student teachers, who participated in post-implementation discussions and recorded their experiences.

4.1 Reflections from School Administrators and Community Scholars

The administrators and community scholars commented that this was a good project because it was able to draw out the local identity of each community to be applied in the research project. In addition, students and teachers in the school were able to participate in the activities, go to the community, and it was considered a good start to use early childhood children in the project because children are the starting point for development in the next age. It is also a project that instils love for the community and their origins. In addition, students have developed their own teaching management in creating innovative media for teaching management and can also integrate it with other learning units.

4.2 Reflections from Mentor Teachers

The mentor teachers thought that it was beneficial to the local area, allowing students to learn about the history of the identity in the community and see the value of the community. It was a project that instilled a sense of preserving the identity of their own community, allowing students to use their creativity in producing media and innovations to develop early childhood children, and using the identity in the community to teach children about the value of things close to them, leading to tangible learning for children. They learned how to plan experiences, collect data, cooperate between the community, teachers, student teachers, collect work and present it. They were able to apply the identity to teaching and learning in the future, including being a guideline for administrators at the school, district and regional levels to plan the future of the community and for new generations to love the community.

4.3 Reflections from Student Teachers

Student teachers gave their opinions in 3 areas: first, student teachers and community. They learned more about the history and importance of their own community. They played a role in learning together with people in the community, which led to them getting to know

important people, community leaders, villagers, and building good relationships with people in the community. Second, in terms of personal growth, they learned to work more systematically, were inspired by their peers' work, and recognized the need to improve their own innovations. Third, regarding their interactions with early childhood learners, they felt they were able to pass on cultural knowledge in an engaging and accessible way, helping children to appreciate their community and its identity. They emphasized the importance of fostering cultural awareness in early childhood as a foundation for long-term preservation of local heritage.

Reflective Synthesis

These three dimensions of reflective learning— community connection, personal development, and child impact—collectively demonstrate how the project fostered holistic professional growth among student teachers. The findings show that the participatory nature of the project encouraged meaningful engagement with local identity, while simultaneously promoting cultural sustainability in early childhood education. As a result, the project not only achieved its educational goals but also contributed to building a generation of teachers who are both community-rooted and pedagogically innovative.

DISCUSSION AND IMPLICATIONS

DISCUSSION

1. The identification of 26 elements of community identity by student teachers demonstrates the effectiveness of learning processes that align with constructivist theory (Piaget, 1973; Vygotsky, 1978), in which learners actively construct knowledge through authentic engagement with their surroundings. By interacting with community scholars, observing local practices, and participating in focus group discussions with school administrators and teachers, student teachers co-constructed their understanding of local identity. This process also reflects the principles of Culturally Relevant Pedagogy (Ladson-Billings, 1995; Gay, 2010), which highlight that connecting educational content to learners' cultural contexts enhances meaning, motivation, and long-term retention. The collaborative analysis and decision-making ensured that the selected community identities were not only contextually appropriate but also pedagogically sound for developing learning innovations based on community identity.

This approach is consistent with the model of community identity identification proposed by Thailand's Department of Community Development (2010), which emphasizes two steps: (1) analyzing community data gathered through participatory community planning to identify unique cultural traits—such as historical background, traditions, beliefs, geography, environment, and natural resources—and (2) engaging in public forums to collaboratively interpret this data and formally designate the community's identity. Moreover, the findings align with international perspectives on culturally responsive education. Ladson-Billings (1995) emphasizes that drawing on students' cultural backgrounds enriches the learning process and promotes deeper engagement, while Wenger (1998) highlights how identity is formed and reinforced through meaningful participation in community practices. Similarly, Gay (2010) advocates for curriculum that reflects learners' lived experiences and cultural heritage, arguing that such integration fosters both academic success and personal empowerment. In this context, the "Kru Rak Thin" Project exemplifies how student teachers, through a structured and participatory process, can co-construct educational content that is both culturally grounded and developmentally appropriate for early childhood learners.

2. The high proportion of learning innovations based on community identity rated as "Good" (93.5%) indicates that integrating community identity into instructional design not only ensures contextual relevance but also raises the quality of pedagogical tools. This outcome is consistent with the instructional innovation development frameworks proposed by Khaemmani (2016) and Ritcharoon (2016), which emphasize systematic steps of problem analysis, innovation selection, design, development, and expert validation. It also reflects the principles of design-based research (DBR) (Wang & Hannafin, 2005), which highlight iterative and collaborative design in real-world classroom contexts. Moreover, the results support Darling-Hammond et al. (2017), who stressed that effective teacher preparation must provide opportunities for novice teachers to create, test, and refine teaching tools in authentic environments.

At both national and international levels, these findings align with previous studies demonstrating the value of culturally relevant instructional innovation. For instance, Nieto (2010) argued that innovations grounded in students' cultural experiences enhance engagement and learning outcomes. Similarly, Thai studies by Kanya & Rittikhup (2020) and Tanam et al. (2022) reported that story-based and picture book innovations developed collaboratively with local contexts were rated highly appropriate by experts. Together, these studies confirm that identity-based innovations can effectively enhance the quality of education, particularly in early childhood settings where cultural backgrounds are crucial for engagement and understanding.

3. The consistently high learning outcomes (above 80% in all schools) demonstrate that when instruction is grounded in community identity, it creates meaningful contexts that activate children's prior knowledge—a principle supported by schema theory (Anderson, 1984) and aligned with the constructivist view that learning is most effective when it builds on what learners already know (Piaget, 1973; Vygotsky, 1978). The integration of familiar traditions, local environments, and everyday materials made learning both recognizable and engaging for young children.

Furthermore, the use of hands-on and play-based innovations—such as storybooks and educational games—reflects practices that align with developmental needs in early childhood. Bodrova and Leong (2007) emphasize that concrete and play-centred experiences foster cognitive, social, and emotional growth, while Epstein (2007) highlights the value of integrated, culturally responsive curricula. The present findings are also consistent with research in Thailand, where Phuthosonthi et al. (2018) reported that 85.93% of pre-schoolers engaged in educational games surpassed the mathematics proficiency threshold, and Buddha et al. (2020) found that game-enhanced project-based learning produced average science process scores of 82.87%. Taken together, this evidence reinforces that community-grounded, play-integrated instructional innovations can significantly enhance learning outcomes in early childhood education.

At the same time, certain limitations of this study should be acknowledged. The implementation was confined to four provinces and only one semester, making it difficult to assess the long-term sustainability of the outcomes. In addition, while the relatively large sample size ensured representation across diverse communities, it may have reduced the depth of qualitative insights in some cases. Future research should therefore consider longitudinal studies to evaluate sustained impacts, comparative research in other regions of Thailand, and in-depth qualitative investigations into how specific community identities influence child development.

IMPLICATIONS

Based on the findings and discussion of this study, several key implications can be drawn for practice, teacher preparation, and future educational policy:

1. Integrating Community Identity in Early Childhood Curriculum

The study highlights the pedagogical value of grounding early childhood learning in local community identity. Educational institutions— particularly those serving rural or ethnically diverse populations— should consider systematically incorporating community-based content into early years' curricula. Doing so not only supports culturally responsive pedagogy but also fosters a deeper connection between young learners and their cultural roots.

2. Capacity Building for Pre-service Teachers

The success of student teachers in developing high- quality learning innovations suggests that teacher education programs should include structured opportunities for pre-service teachers to engage with communities, co- design instructional materials, and receive feedback from local stakeholders. Such practices support experiential learning and align with global standards for professional teacher preparation.

3. Collaborative Innovation Development

The participatory process involving student teachers, local scholars, school administrators, and mentor teachers proved to be an effective model for instructional innovation. Educational agencies and teacher education institutions should promote cross-sector collaboration in curriculum and material development, especially when targeting early childhood learners.

4. Promoting Play-Based and Contextual Learning

The use of tangible, play-based materials—such as storybooks and games—was found to enhance learning outcomes significantly. Policymakers and curriculum developers should support the integration of developmentally appropriate practices and culturally contextual materials in early childhood education to maximize student engagement and achievement.

5. Policy Considerations for Community-School Integration

Findings from this study suggest that local wisdom and cultural identity can serve as a valuable foundation for school development. Educational authorities at district and national levels should explore policy frameworks that empower schools to work closely with their communities in designing content and pedagogical strategies that reflect local realities.

CONCLUSION

This study examined the development and implementation of community identity-based learning innovations in early childhood education through the "Kru Rak Thin" Project. The findings revealed three key outcomes. First, student teachers successfully identified 26 distinct elements of community identity through participatory methods involving local scholars, school personnel, and community members. These identities reflected the unique cultural and lifestyle characteristics of each community and were collaboratively selected to ensure contextual relevance for early childhood learners.

Second, the developed teaching innovations, consisting of lesson plans, big story books and educational games, were assessed as having good quality by experts, with 29 out of 31 items rated "good" and the remaining two rated "adequate", demonstrating the effectiveness of the systematic participatory development process, which included workshops, co-design and expert advice.

Third, the implementation of the innovation resulted in higher academic achievement for students, with all early childhood students in participating schools achieving 80% or more in learning, indicating that the integration of culturally familiar content, hands-on activities, and play has a significant role on promoting student engagement and learning. These outcomes underscore the potential of localized, culturally responsive pedagogy in enhancing early childhood education, particularly in rural and underserved communities.

Overall, the study demonstrates that integrating community identity into learning not only strengthens the relevance and effectiveness of instruction but also fosters pride, participation, and deeper connections among students, teachers, and communities. The model implemented in this project offers a promising framework for teacher preparation, curriculum development, and educational equity in diverse local contexts.

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