

SHAPING COMMUNITY-BASED CURRICULUM OF LOCAL WISDOM ON PALMYRA PALM AT HUAI KROT COMMUNITY IN CHAI NAT PROVINCE OF THAILAND: INITIAL DESIGN PROCESSES

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ABSTRACT

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This article provides an in-depth analysis of the curriculum development process undertaken by the Huai Krot community in the Chai Nat province of Thailand. The curriculum is centered on the local wisdom on palmyra palm, a valuable local resource. Achievement of this objective was facilitated through the delineation of the preparation and planning phases of course development. The commencement of community curricula entailed the execution of two fundamental stages. Before integrating the community curriculum into the educational process, it was crucial to establish efficient management strategies and conduct a thorough evaluation of the community's engagement. Data collection involved the use of questionnaires and semi-structured interviews. The investigation delineated two fundamental phases in the construction of a community curriculum. Preparation involved the assessing community capacity and needs. The primary stage of research was dedicated to familiarizing oneself with the field, whereas the subsequent stage of research was focused on identifying relevant curriculum concerns. The subsequent stage entailed the formulation of a curriculum plan that was firmly grounded in the local community. This stage required executing six tasks pertaining to curriculum formulation. The activities involved the forming of a committee, identifying challenges related to meeting community needs, training of trainers who would form community/local researcher teams, creating a curriculum based on community input, assessing the curriculum, and establishing a supervisory team. The article contributes to the understanding of how community-oriented curricula that utilize local knowledge and resources could play a crucial role in enabling, nurturing, and sustaining the growth of local communities.

Keywords: Local wisdom; palmyra palm; community-based curriculum; Huai Krot subdistrict; Chai Nat province; Thailand

1. INTRODUCTION

The cultivation and production of palmyra palm are fundamental aspects of the livelihoods of the residents in the Huai Krot subdistrict community, located in the Sankhaburi district of Chai Nat province. The occupation in question is characterized by its autonomy and involves the utilization of natural resources. Engaging in the profession of palmyra palm production has the potential to generate financial resources that can adequately support one's family within the framework of the sufficiency economy. The palmyra palm has been held in high regard as an invaluable tree in Huai Krot subdistrict for a long time across various domains, including the economy, society, culture, and environment. The utilization of palmyra palm by the inhabitants of the Huai Krot subdistrict serves as a means of sustenance and occupation. The community has acquired knowledge and passed down the practice of utilizing the palmyra palm, resulting in the development of local wisdom. This wisdom has been assimilated into the way of life of subsequent generations through various learning methods, including self-learning and instruction from elders and neighbors who rely on the palmyra palm for their livelihoods. According to Khamrod (2007), the communities of Huai Krot developed an understanding of palmyra palm production, organized as a production cycle. The process begins with the cultivation and fabrication of palmyra palm equipment, followed by the production of palmyra palm. Efforts are then made to enhance production methods and optimize storage utilization. Subsequently, the distribution and consumption of palmyra palm products are addressed while also acknowledging the importance of inheriting ancestral wisdom.

Due to the generational divide, the younger generation lacks the knowledge and skills necessary to effectively utilize the palmyra palm. Consequently, there is a lack of intergenerational transmission of palmyra palm-related professions from parents to their children. Offspring do not acquire palmyra palm vocations from their progenitors. Furthermore, subsequent cohorts who have received formal education within the institutionalized schooling system exhibit attitudes and behaviors that are incongruent with the traditional community or vocation of palmyra palm craftsmanship. It can be argued that there exists both positive and negative perceptions and attitudes surrounding the production of palmyra palm. For instance, a prevailing notion suggests that engaging in activities such as making, climbing, and growing palmyra palm is predominantly associated with impoverished individuals who lack access to sufficient sustenance (W. Juijang, personal communication, January 4, 2022). Consequently, the field of wisdom on palmyra palm has been disregarded without any subsequent developments. Furthermore, the incorporation of local wisdom into the school curriculum may not align with the practical realities that future generations will encounter in their daily lives. As a consequence, the local wisdom has been disregarded. The knowledge and wisdom associated with the palmyra palm have been regrettably omitted from the collective understanding of subsequent generations. Furthermore, the occupation of the palmyra palm community in Huai Krot subdistrict continues to persist, albeit with a gradual decline in numbers over time. As a result, the local wisdom on the palmyra palm has not undergone intergenerational transmission. In addition to the local wisdom on the palmyra palm at the Huai Krot community, according to Chuenka and Supun (2019), there exists a local wisdom in Chai Nat province that is currently at risk of disappearing and requires immediate attention for preservation. One approach to enhancing the value derived from local wisdom's knowledge reservoir is through the establishment of a local wisdom community curriculum. The utilization of this tool facilitates the organization of the educational process, enabling the transfer of knowledge on the palmyra palm production from older individuals to the younger generation or youth within the community. In accordance with the National Education Act of 2542 (1999), specifically Section 28 (National Education Act 2542 BE, 1999), it is stipulated that the development of the curriculum for each educational system necessitates the involvement of the community and local stakeholders across multiple dimensions. The acquisition of knowledge pertaining to local knowledge systems facilitates the cultivation of affection, appreciation, vocational pursuits, and the avoidance of migration from one's place of origin, thereby engendering methodical advancements within the local community.

This article examines how the community-based curriculum of local wisdom on the palmyra palm in the Huai Krot community has been shaped, focusing on the initial design processes in the preparation and planning phases. Specifically, to answer this question, the following sub-questions are addressed:

1. How are the community's potential and needs assessed as a basis for community-based curriculum development?
2. How has the local wisdom of the palmyra palm been incorporated into the community-based curriculum?
3. What does the nuanced initial design process look like in the initial phase of developing the community-based curriculum?

The article is organized as follows: the subsequent part presents the current literature on local wisdom, community-based curriculum, and sustainability. Next, there is an outline of the methodology used

and the steps of the analysis. This is followed by the findings section, which answers the research questions, and a discussion of how the findings resonate with the research questions and current works in the field. The final part is the conclusion of the paper.

2. LOCAL WISDOM, COMMUNITY-BASED CURRICULUM, AND SUSTAINABILITY

International research focusing on the intersection of local wisdom, community-based curriculum, and sustainability has increasingly gained the attention of scholars and practitioners (UNESCO Bangkok, 2021) as evinced in the case of Indonesia, which is interested in this approach. Even though the research theme of local wisdom, sustainability, and education remains limited to local contexts, there is a need for international collaboration to facilitate the exchange of experiences and research related to the topic (Lestari et al., 2024). Suprapto et al. (2021) investigated Indonesian curriculum reform in policy and local wisdom, covering curriculum policy and policy borrowing, philosophy of Indonesian local wisdom, cultural-based learning, science local wisdom and ethno-science, and policy borrowing versus local wisdom. Yufiarti et al. (2018) developed a curriculum model for Adiwiyata based on local wisdom in an elementary school in Palu City, Indonesia, but did not adequately consider local community needs and participation. Agustin (2018) investigated the utilization of maritime natural resources and integrated it to develop the local wisdom-based curriculum in Indonesia. Nurzen et al. (2022) asserted that the implementation of the Incung script as a form of local wisdom-based curriculum development involves seven stages, including a feasibility and needs study stage.

Nationally, Thailand has enacted the National Education Act of 1999 to emphasize local wisdom in education as a means to improve educational administration (National Education Act 2542 BE, 1999). Educational institutions must work with stakeholders to incorporate local wisdom—including personal experiences, knowledge, and expertise—into educational administration under Section 29. This includes integrating formal, informal, and non-formal education. This section focuses on Section 57. It is required that the experience, knowledge, expertise, and local wisdom of education staff be used to involve community members in educational management. Recognition should also be given to advocates of education management. The Act emphasizes the importance of community engagement in community development by creating a communal learning framework that includes formal, informal, and non-formal education. This framework includes encouraging self-directed learning using natural environment-related educational resources. The names of wisdom teachers' residences and schools vary depending on the overseeing organization. According to the National Education Act of 1999, students can choose how to learn based on their needs, interests, and abilities. Adaptable learning is based on a learner-centric approach that emphasizes practical application. Learner-centered theory and organic knowledge acquisition through local wisdom support this approach. According to Maliwong (2004), local wisdom should be shared by educators or community leaders with training experience. This method involves learning from hands-on experience and practical training or demonstrations by local speakers. The community-based curriculum focuses on content and experiential learning. To address real-world social, cultural, community, and local challenges, local agencies and individuals collaborate to create knowledge for learners. The community-based curriculum enables local students to apply their knowledge to personal growth and professional development for the benefit of the community and society. Local wisdom and assets are integrated into the community-based curriculum. Thus, people learn about their surroundings, develop an appreciation of their community, and can utilize local resources to advance their careers. Engaging the community in curriculum development represents an educational management approach that is truly derived from the educational needs of students and the local community (Soopunyo et al., 2012).

According to Thammalangka (2012), the community-based curriculum is characterized as a localized educational framework that draws upon the resources within the community to facilitate learning for both educators and students. The local wisdom of the palmyra palm encompasses various aspects, including its content and the locations where individuals can acquire knowledge and engage in practical application. Learners have the autonomy to select specific wisdom teachings that align with their unique challenges and requirements. The acquisition and sharing of local wisdom, which is the foundation of community empowerment, enhance community resilience. According to the Office of the National Education Commission, the National Education Act of 1999 emphasizes tailoring curricula to local requirements. This method involves engaging local people in curriculum development to ensure it aligns with their lifestyle. As demonstrated in Section 28, it is evident that the inclusion of community and local participation is imperative in the process of curriculum development for each system. Studying local wisdom helps individuals cultivate a deep appreciation for and commitment to their chosen professions, thereby discouraging them from abandoning their place of origin. This, in turn, contributes to the systematic progress of the local community.

Local curriculum development involves setting goals, choosing content, and selecting teaching and learning methods. These components collectively serve as a comprehensive guide for educators, ensuring that the desired outcomes are achieved for the learners. The development of a general curriculum and a local curriculum are both enhancements to the existing curriculum, introducing a new curriculum category that includes locally specific content. These curricula are designed to be implemented in a specific geographical area, as supported by Chuaratanaphong (1996), Thatthong (2007), and Promata and Khamawattana (2016). The local curriculum development process begins by conducting a comprehensive examination of fundamental information. This is followed by the preparation of a preliminary draft and the creation of course documents. Subsequently, the draft curriculum undergoes a series of quality checks. Upon completion of these checks, the curriculum is implemented and evaluated through a follow-up process. Finally, a revised version of the local curriculum is produced. According to the Office of the Vocational Education Commission (2015), short professional courses are considered a form of non-formal education. This educational system involves the development of curriculum by educational institutions, which aligns with the short-course professional curriculum development framework. The involvement of enterprises, professionals, and communities in educational management is essential for the development of a curriculum. This curriculum should consist of at least one competency unit and require a study period of no less than 6 hours. Additionally, the curriculum development process should be approved by educational institutions.

From this starting point concerning the interconnectedness of local wisdom, community-based education, and sustainability, the integration of these three concepts has the potential to contribute to the development at the local level. This can be achieved through the establishment of collaborations and partnerships among diverse stakeholders, including local inhabitants, academic institutions, local government bodies, and civil society organizations, among others. The present study builds upon the authors' prior projects (Nokkaew, 2021; Nokkaew & Jirakajornjaritkul, 2021) and utilizes their findings as a foundation for developing a community-based curriculum. This aim of the curriculum is to engage the community in the ongoing project.

This study places significant emphasis on the community-based curriculum focused on the local wisdom of the palmyra palm. Specifically, it focuses on the development of a short-course local curriculum that can serve as an effective learning management tool for individuals interested in pursuing careers in palmyra palm production or seeking a secondary occupation. The previous research conducted by the authors will be utilized as preliminary elements and as part of the theoretical framework. Kemmis and McTaggart (1988) describes participatory action research (PAR) as a methodical approach that encompasses the stages of planning, taking action, observing, and reflecting. Similarly, Chantavanich (2005) defines PAR as a learning approach that prioritizes acquiring knowledge through hands-on experience and necessitates the active engagement of all individuals involved in research activities, ranging from the identification or preparation of the problem to its implementation, follow-up, and evaluation. This paper employs the PAR methodologies described by Kemmis and McTaggart (1988) and Chantavanich (2005), which consist of the following stages: research preparation, planning, implementation, and monitoring and evaluation as the research framework, as shown in Figure 1.

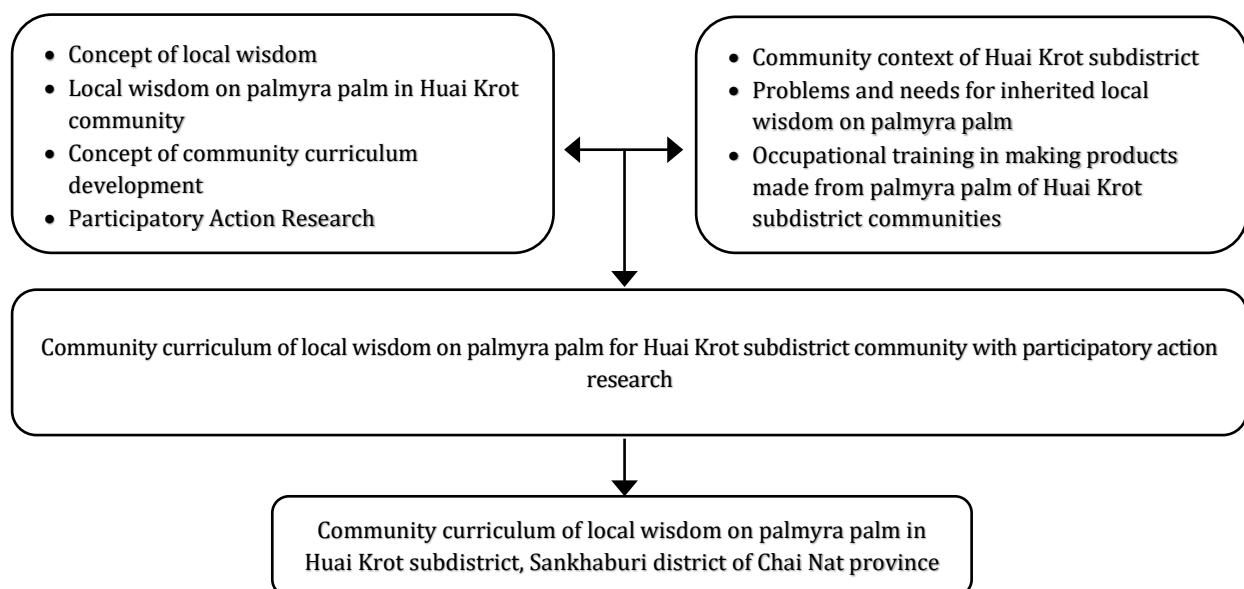


Figure 1: Conceptual framework

3. METHODOLOGY

3.1 Methodological considerations

This study used PAR to emphasize community involvement in all curriculum development stages. PAR is becoming a popular curriculum development research method where researchers and community members work together. Collaborative analysis of community issues is needed to identify community needs. The process involves collaborative data collection and analysis to find workable solutions. PAR and curriculum development are mutually supportive. PAR has four steps (i.e., preparation steps, planning steps, implementation steps, and monitoring and evaluation steps); this article addresses the preparation and planning stages of research. Specifically, this article focuses on two crucial curriculum development stages. The first step is assessing participants' educational needs, and the second is developing a community-based curriculum framework.

3.2 Scope of study

The present article builds upon the previous project conducted by Nokkaew and Jirakajornjaritkul (2021). This previous project focused on investigating the utilization of palmyra palm as a form of local wisdom within the context of self-management communities in Huai Krot subdistrict, Sankhaburi district, Chai Nat province. The research area selected for this current study was Huai Krot subdistrict, specifically encompassing villages No. 1–9, located within the Sankhaburi district of Chai Nat province. The population of this region consists of 9,919 individuals residing in a total of 2,991 households. The preceding research demonstrated that the Huai Krot community faces challenges related to the allocation of households involved in productive endeavors. Furthermore, there is a gap in the process of obtaining, distributing, and conserving knowledge pertaining to local wisdom on palmyra palm.

3.3 Key informants

3.3.1 First group of key informants

The study involved a total of 12 key informants, comprising various individuals who held important positions or possessed relevant expertise. These key informants were categorized into six groups: (1) four official leaders and representatives from local government agencies, namely the deputy mayor of Huai Krot subdistrict, an agriculture officer in Sankhaburi district, an agricultural subdistrict representative, a teacher from Huai Krot Wittaya School, and a non-formal education teacher from Huai Krot subdistrict; (2) two leaders from community organizations, namely the chairman of the Huai Krot subdistrict community organization and the chairman of the Sufficiency Economy Learning Center for Palmyra Palm Conservation; (3) one community elder who had previous experience working in the palmyra palm production; (4) two representative from the village committee and from the Sufficiency Economy Learning Center for Palmyra Palm Conservation; (5) two palmyra palm producers; and (6) an expert teacher from Don Mueang Technical College or academic professionals from outside the community.

3.3.2 Second group of key informants

The second group consisted of the villagers of the Huai Krot community. This group included 45 people who are studying or developing into villagers in the villages of 1–9 of Huai Krot subdistrict. The informants in Group 2 are community developers or community researchers.

Table 1: Characteristics of the second group of key informants

	Demographic Data	No.	Percentage
Gender			
Male		25	55.00
Female		20	45.00
	Total	45	100.00
Age			
<i>Young adult</i>			
14–19 years		9	20.00
<i>Working age</i>			
30–40 years		5	11.00
41–50 years		14	31.00
51–59 years		10	22.00
<i>The elderly</i>			
60–70 years		7	16.00
	Total	45	100.00

Table 1: Characteristics of the second group of key informants (continued)

Demographic Data	No.	Percentage
Occupation		
Palmyra Palm-related career	5	11.00
Palmyra Palm-non-related career	40	89.00
Total	45	100.00

From Table 1, most of the informants were male, 25 (55%), with 20 female (45%), mostly 41–50 years old, 14 (31%), followed by youths of 14–19 years, 9 (20%). There were 7 elderly participants (16%), engaged in non-related occupations to palmyra palm. Most respondents, 40 (89%), were employed in work unrelated to palmyra palm, while 5 (11%), were working in palmyra palm-related occupations.

3.4 Research tools

Research tools included analysis of relevant documents, observations, and informal meeting discussions. These tools comprised a record form to assess the learning needs related to Huai Krot local wisdom on palmyra palm and an interview form to gather information on individual needs regarding community-based curriculum development.

3.5 Data collection

The research preparation phase was from mid-November 2021 until early December 2021, while the data collection phase was from mid-December 2021 until late January 2022.

3.6 Data analysis

The data gathered in this study include both quantitative and qualitative data, as outlined below.

3.6.1 Quantitative data

The study collected quantitative data through field notes and reflections to evaluate individual learning needs and training effectiveness in palmyra palm production among the target group of learners. Additionally, personal demand for attending courses in local wisdom on palmyra palm is represented by individual student course needs (see Table 2). This portion of the data is summarized and represented using measures of frequency and percentage and is organized and displayed in tables.

3.6.2 Qualitative data

Qualitative data were obtained from documents, community context information, and semi-structure interviews for community-based curriculum development needs activity, as well as recording data according to the curriculum development phase using a PAR process, and information from video and audio recordings of lectures. These qualitative data were grouped into categories for easy understanding and rational relations. Narratives, thoughts, beliefs, and behaviors were transcribed and analyzed. The author subsequently engaged in a process of re-examining the information to gain a comprehensive understanding, with particular emphasis on the key informants' viewpoint and reflection regarding the phenomenon. The research objectives and conceptual framework were used to divide the content into main points and sub-issues. Qualitative analysis was conducted through content analysis, which involved presenting descriptive data and illustrations.

4. FINDINGS

4.1 Community's potential and needs as a basis for community-based curriculum development

The study found that the research preparation process is a step in developing the community-based curriculum on local wisdom within the Huai Krot subdistrict community of Chai Nat province, based on an investigation of community background information. The need for community-based curriculum development involves a stage for preparation of the community, local residents, and networks to create familiarity and enhance academic knowledge, which is divided into two phases.

1) Pre-research phase: Creating familiarity with the field

The pre-research phase consists of two activities: analysis and synthesis of the literature, and field visits to build relationships and familiarity with the community and prepare the community. The analysis of literary synthesis and related documents covered concepts of local curriculum development, current problematic conditions, values, and community needs, the nature of the content of local wisdom, and summarizing issues that need to be addressed in the research area. This also includes a summary of problems and solutions to palmyra palm farming in the Huai Krot community. This paper represents a continuous endeavor building on our previous research project (Nokkaew & Jirakajornjaritkul, 2021) titled "A Study of

Palmyra Palm as Local Wisdom for a Self-Management Community in Huai Krot Subdistrict, Sankhaburi District, Chai Nat Province." The findings can be further illustrated as follows:

One of the primary challenges associated with engaging in palmyra palm production pertains to the scarcity of individuals proficient in climbing palmyra palm trees, primarily due to the inherent danger of falling from considerable heights. The decline in the population of palmyra palm trees can be attributed to the rising costs associated with procuring fuel materials for their production as well as the scarcity of palmyra palm-making equipment. Furthermore, the reduction in their numbers can be attributed to the practice of felling palmyra palm trees for the purpose of rice farming as well as their sale as ornamental plants. The individuals engaged in palmyra palm production often lack ownership of palmyra palm trees. To ensure the preservation of the palmyra palm's quality, it is imperative to consistently uphold personal conduct, attitude, discipline, and patience on a daily basis. Failure to do so may result in the deterioration of the palmyra palm. In order to begin the palmyra palm harvesting process, it is necessary for workers to vacate the premises early at 4am and subsequently retrieve the palmyra palm again at 3pm. The younger cohorts exhibit a reluctance to engage in the aforementioned activity due to a lack of sufficient patience. They arise from their slumber at a later hour than anticipated. The arid climate hinders the palmyra palm's ability to bloom. Households engaged in palmyra palm production are facing a dearth of successors, while health issues and advancing age render the collection of fresh palmyra palm unfeasible. The act of forging jaggery from palmyra palm into alternative products is hindered by the insufficient allocation of aid funds and working capital for workers involved in the palmyra palm industry.

The proposed career solution for palmyra palm production entails: firstly, the establishment of a cohort comprising students or young adolescents who possess knowledge and familiarity with palmyra palm trees. This cohort will engage in practical training exercises involving the skill of climbing palmyra palm trees, commencing with smaller specimens. The proposed strategy is characterized by a proactive stance while simultaneously acknowledging potential risks. Secondly, the Palmyra Palm Conservation Group and the Palmyra Palm Enterprise have collaborated to establish a palmyra palm climbing school. This initiative aims to provide employment opportunities, foster career development, and potentially facilitate collaboration with other agencies. The school utilizes the palmyra palm as a learning resource, where students are taught the art of climbing palmyra palm trees under the guidance of a mentor. The objective is for students to acquire the skills necessary to harvest fresh sugar from the palmyra palm, which can then be further processed. Finally, the implementation of community businesses and community enterprises constitutes another key aspect of this initiative. These projects empower local communities by creating sustainable businesses that meet their needs. Products such as palmyra palm leaf, palmyra palm, and sugar products are produced using palmyra palm-based vocations, with Palmyra Palm Enterprises Group handling the marketing. The principle of a sufficiency economy, emphasizing the attainment of adequate sustenance, is advocated alongside the incorporation of local wisdom from the Huai Krot community.

2) Research phase: Identifying problems and curriculum needs

During the research phase, the authors conducted a comprehensive examination of the community context, encompassing two key activities. Firstly, they investigated the community context, including issues and expectations. Secondly, they explored the learning requirements related to local wisdom on palmyra palm, focusing on individual needs for developing a local curriculum in terms of content and interest in palmyra palm production training. The authors utilized PAR, collaborative thinking, strategic planning, and collective action in their investigation. The outcomes of this investigation are presented below.

The present study examines the community context, encompassing community issues, expectations, and the authors' utilization of Nokkaew and Jirakajornjaritkul's (2021) paper to gain insights into the challenges and potential solutions pertaining to the occupation of palmyra palm production. This academic research serves as a valuable resource for understanding contextual factors, problems, and community aspirations. The study commenced by examining the community context through an initial group of informants. Semi-structured interviews conducted in groups of 2-3 people achieved this goal. The findings are categorized below in the order of interview topics.

This study had 12 key informants—9 men and 3 women. Among them were 4 official leaders and representatives from local government agencies, including the deputy mayor of Huai Krot subdistrict, the agricultural officer of Sankhaburi district, an agricultural subdistrict representative, vocational teachers from Huai Krot Wittaya School, and non-formal education teachers from Huai Krot subdistrict. In addition, there were two community organization leaders: the chairperson of the Huai Krot subdistrict community organization and the president of the Sufficiency Economy Learning Center for Palmyra Palm Conservation. There was also one community elder who had previous experience in palmyra palm production, a representative from the village committee, and two additional representatives from the Sufficiency Economy

Learning Center for Palmyra Palm Conservation. Furthermore, there were two palmyra palm farmers and expert teachers from Don Mueang Technical College who served as external academic advisors.

The research focused on investigating the inclination of learners to acquire knowledge about local wisdom related to the palmyra palm. Among the 45 key informants, Group 2 exhibited a notable eagerness to engage with the curriculum and had actively participated in informal discussions during the preliminary stages of the research. The research team conducted interviews with informants both in group settings and individually, based on the informants' convenience. The data obtained from these interviews were recorded. This data collection aimed to gather information on the community's basic needs and will serve as foundational data for the community-based curriculum development. The inquiry encompasses inquiries of a general nature, a genuine interest in acquiring knowledge and skills pertaining to the local wisdom on the palmyra palm, motivations for seeking such knowledge or training, specific categories of local wisdom to be acquired, as well as considerations regarding the timing and location for conducting instructional sessions. The findings of the study are detailed in Table 2.

Table 2: Personal demand for attending courses in local wisdom on palmyra palm in the Huai Krot community

Items	No.	Percentage
Reasons		
Pursuing a career in the production of palmyra palm	10	22.00
Second job	30	67.00
Others	5	11.00
Total	45	100.00
Study plan		
Plan to participate in every available course	5	11.00
Plan to participate in the only course interested in	40	89.00
Total	45	100.00
Study plan of interest (can choose more than one item)		
The cultivation and management of palmyra palm trees	19	
Climbing palmyra palm trees to harvest toddy	3	
Jaggery making	3	
Palmyra palm wickerwork	7	
Processing of palmyra palm leaf stalk	7	
Palmyra palm leaf thatching	1	
Palmyra palm cake	12	
Jelly-like seed	1	
Date and time preferences		
Saturday	16	35.00
Sunday	20	45.00
Every day	9	20.00
Total	45	100.00
Place		
Teachers' house	15	33.00
Sufficiency Economy Learning Center for Palmyra Palm Conservation	30	67.00
Total	45	100.00

According to Table 2, a majority of the key informants expressed their motivation to acquire knowledge and skills related to local wisdom on palmyra palm in order to maximize their supplementary earnings from this resource. Specifically, 30 individuals (67%) cited this as their primary reason. In contrast, 10 individuals (22%) expressed their intention to pursue a professional career in the field of palmyra palm-related production. The remaining 5 individuals (11%) provided various other reasons for their interest in learning and training in local wisdom on palmyra palm. The study revealed that 89% of a sample size consisting of 40 individuals expressed a preference for exclusively acquiring local wisdom pertaining to the palmyra palm, which they found most intriguing. Additionally, 19 participants indicated a strong inclination towards receiving training in the cultivation and maintenance of palmyra palm canes, while 12 individuals expressed a desire to learn the art of crafting palmyra palm cakes. The most preferred day and time for attending study/training sessions was Sunday, with a majority of 20 individuals (45%). This was followed by Saturday, with 16 individuals (35%). Additionally, 9 individuals (20%) found it convenient to study/train on a daily basis. The Sufficiency Economy Learning Center for Palmyra Palm Conservation is the most convenient location for

studying and training, with 30 individuals (67%). Additionally, 15 individuals (33%) indicated a preference for the teachers' residence.

4.2 How the local wisdom on palmyra palm is incorporated into a community-based curriculum

The planning phase is an essential stage that encompasses the objectives related to the development and design of a community-based curriculum. The primary objective of this study is to investigate the local wisdom on the palmyra palm in the Huai Krot subdistrict, situated within the Sankhaburi district of Chai Nat province. The proposed initiative involves the strategic development, conceptualization, and execution of an initial community-based curriculum. A comprehensive overview of the aim of the research, data analysis, and initial findings conducted during the preparation and planning stages is provided (see Table 3), which serves as a basis for the local curriculum development. Then, we formulate the syllabus, for example, as an initial draft of the community-based curriculum of local wisdom on palmyra palm (see Table 4). This curriculum encompasses six separate activities to form the curriculum, which are outlined as follows.

Activity 1: Establishing a committee

Establishing a committee comprised of community members to facilitate the development of a curriculum for the community. The committee will be responsible for strategizing and formulating the structure and content of the curriculum.

Activity 2: Identifying challenges in addressing community needs

This communication targets curriculum developers. This communication provides academic and community-based resources for the curriculum development committee meeting. The meeting summarized, integrated, and prioritized data based on importance. A wide-ranging discussion led to a consensus on the need to educate palmyra palm cultivators. This consensus prioritized creating a "School of Palmyra Palm" for the Huai Krot community. The local identity development plan incorporates the local wisdom on "Palmyra Palm Processing" and collaborates on planning and curriculum design. Based on group 1 and group 2 informants' needs, short vocational courses on palmyra palm local wisdom were recommended. These courses would satisfy the student's interest in palmyra palm climbing, simmering, thatching, and cake-making. The community-based educational program on palmyra palm wisdom is called the "School of Palmyra Palm." The "School of Pomelo" in Chai Nat province inspired this name for easy recall and consistency. The factors affecting community-based curriculum documentation are examined, focusing on vision, mission, goals, desirable attributes, course structure, course scheduling, study time allocation, learning materials, selection of community speakers, involvement of research team members, and collaborative efforts between community researchers and wisdom teachers in preparing the draft curriculum.

Table 3: A comprehensive overview of the study aims, data analysis, and initial findings of the preparation and planning stages

Aims	Analysis methods	Initial findings
<ul style="list-style-type: none"> Local curriculum development concept problems, values, needs of the community, the nature of the subject matter, local wisdom. Occupational context of Huai Krot community. 	<ul style="list-style-type: none"> Summarize, analyze, and synthesize content from academic papers and research. 	<ul style="list-style-type: none"> Local curriculum development Information, the nature of the substantive content on local wisdom. Occupational context of Huai Krot community.
<ul style="list-style-type: none"> A study of the community context of Huai Krot subdistrict, needs, problems, and community solutions in palmyra palm occupation. 	<ul style="list-style-type: none"> Summarize, analyze, and synthesize content from academic documents of government agencies in the area and research. 	<ul style="list-style-type: none"> One of the challenges faced in the palmyra palm industry is the scarcity of skilled climbers to maintain the freshness of the palmyra palm trees and a shortage of occupational equipment required for this occupation. Also, the absence of intergenerational knowledge transfers within the local community, the neglect of the attitudes and values held by the younger generation towards pursuing a career in the palmyra palm industry. The proposed solution aims to enhance youth awareness and understanding of the significance of the palmyra palm and local resources, while also fostering a sense of appreciation and commitment to their conservation. Establishment of a Palmyra Palm School.

Table 3: A comprehensive overview of the study aims, data analysis, and initial findings of the preparation and planning stages (continued)

Aims	Analysis methods	Initial findings
<ul style="list-style-type: none"> Interest and desire to learn about the local wisdom of the community and the need to develop a curriculum on local wisdom of the palmyra palm. From interviews with official leaders, leaders by nature, and inquiries of people in the Huai Krot community in different age groups, other. 	<ul style="list-style-type: none"> Frequency, distribution, percentage Content analysis 	<ul style="list-style-type: none"> Locals demand to learn about palmyra palm wisdom. Youth, working-age, and elderly farmers are interested. Small entrepreneurs also want a palmyra palm-related professional training program. For financial gain, people can study specific parts of local wisdom on palmyra palm. Local palmyra palm experts teach. Learners are community members who study on their own time. The sufficiency economy-based study site promotes palmyra palm conservation in Huai Krot.
Development of a community-based curriculum on local wisdom for the Huai Krot subdistrict community through PAR and workshops.	<ul style="list-style-type: none"> Summarize, classify, arrange, and prioritize information from opinions and discussions at board meetings for the development of a curriculum on local wisdom on palmyra palm. 	<ul style="list-style-type: none"> A draft of community-based curriculum on palmyra palm wisdom for Huai Krot subdistrict, the curriculum strives to create a short professional course that matches students' interests in palmyra palm cultivation, culinary, basketry, dessert making, and other relevant areas. The curriculum covers the fundamental principles, communal aspects, educational goals, and intended student population. The behavioral objectives encompass various components such as the body of knowledge, local wisdom on palmyra palm, learning standards, course description, content structure aligned with the body of knowledge and local wisdom, organization of the learning process, learning media for assessing and evaluating learning outcomes, course completion, and collaborative identification of community speakers who will contribute to the teaching process.

Activity 3: Training the trainer, community/local researcher teams

The aim of this activity is to empower community scholars with knowledge and understanding of the local wisdom curriculum development process, enabling them to actively engage in curriculum development activities until successful outcomes are achieved. This will be accomplished through an informal training approach, supplemented by the introduction of relevant document knowledge sources.

Activity 4: Drafting a community-based curriculum

The collaborative efforts of the research team, community researchers, and wisdom teachers resulted in the development of a draft curriculum focused on local wisdom. This process followed the key components of curriculum development and the framework for short-term professional courses. The preliminary curriculum outlines the core principles and goals of the community-based educational program, targeting individuals seeking knowledge about the palmyra palm. It includes behavioral objectives based on local wisdom, adherence to learning standards, a detailed course description, and a structured content framework covering nine areas of expertise related to the palmyra palm. The curriculum also outlines a systematic approach to organizing learning processes, selecting appropriate materials, measuring and evaluating outcomes, and establishing course completion criteria. Additionally, the program involves identifying community members with relevant expertise to serve as instructors.

The community-based courses are designed for short vocational courses lasting a minimum of 6 hours, in line with the curriculum duration suggested by the Office of the Vocational Education Commission (2015). These courses use community resources for education, benefitting both students and instructors. They incorporate local knowledge about the palmyra palm, with opportunities for both theoretical study and practical application in community settings. Individuals choose the knowledge they wish to acquire based on their specific challenges and requirements (Thammalangka, 2012). The community curriculum is tailored for the community, rather than using a pre-existing template from central authorities. Students can choose courses based on their interests and individual needs (see Table 2), without having to take all courses, dedicating a minimum of 6 hours to theoretical and practical study per topic. Hence, to complete the full curriculum, students need to allocate a total of 48 hours (see Table 4).

Table 4: Course syllabus of local wisdom on palmyra palm

Unit	Courses/contents	Practical (Hrs.)	Teacher
1	The cultivation and management of palmyra palm trees	6	Teacher on local wisdom
2	Climbing palmyra palm trees to harvest toddy	6	Folk philosopher
3	Jaggery making	6	Folk philosopher
4	Palmyra palm wickerwork	6	Teacher on local wisdom
5	Processing of palmyra palm leaf stalk	6	Teacher on local wisdom
6	Palmyra palm leaf thatching	6	Teacher on local wisdom
7	Palmyra palm cake	6	Dessert expert
8	Jelly-like seed	6	Dessert expert
Duration (Hours) 48			

Activity 5: Assessing a community-based curriculum

The assessment phase before implementing the curriculum involves evaluating the appropriateness and coherence of the draft community-based curriculum components. This evaluation involves consulting five experts or specialists in curriculum development to assess the consistency index of the community-based curriculum components. The resulting consistency index, evaluated by field experts, can then be used to effectively manage the teaching and learning process for students.

Activity 6: Forming a supervisory team

The implementation of learning activities based on the community-based curriculum is monitored and followed up by a supervisory team. This team is consisting of representatives from the community-based curriculum development committee, including the chairperson of the Sufficiency Economy Learning Center for Palmyra Palm Conservation, occupational teachers, non-formal education teachers, Huai Krot community researchers, and the authors (see Table 4).

4.3 Nuanced initial design process for the community-based curriculum

To begin with, the community-based curriculum development process utilizes the PAR method to carefully analyze the community's problems, needs, and expectations by examining both the internal and external environment. It was discovered that community members expressed a desire to learn how to effectively utilize the palmyra palm as a local resource in order to generate income. They (local residents) also wanted to create occupations related to the palmyra palm by using local knowledge and wisdom. The project's goal was to organize teaching and learning activities for the local residents. The course on local wisdom of the palmyra palm is a community-centered curriculum that enables individuals in the community to acquire knowledge through a self-directed approach facilitated by experts in palmyra palm wisdom. The learning activities can be adapted to accommodate the learners' interests and availability. The learning arrangement involves teaching students to actively engage in the decision-making process regarding their studies, based on local wisdom courses and learning units aligned with their personal interests. This approach ensures that the education they receive is genuinely beneficial to them. The learning approach prioritizes experiential learning, with community members who possess expertise in palmyra palm serving as instructors.

In sum, the Huai Krot community's experience suggests that the nuanced design process to incorporate local wisdom on the palmyra palm into the community-based curriculum comprise two main phases. First is the preparation phase, comprising of the pre-research phase in creating familiarity with the field and the research phase for identifying problems and curriculum needs. Second is the planning phase, which involves shaping the initial draft of a community-based curriculum and its nuanced design process, which comprise of six activities: *Activity 1*, establishing a committee; *Activity 2*, identifying challenges in addressing community needs; *Activity 3*, training the trainer, community/local researcher teams; *Activity 4*, drafting a community-based curriculum; *Activity 5*, assessing a community-based curriculum; and *Activity 6*, forming a supervisory team (see Figure 2).

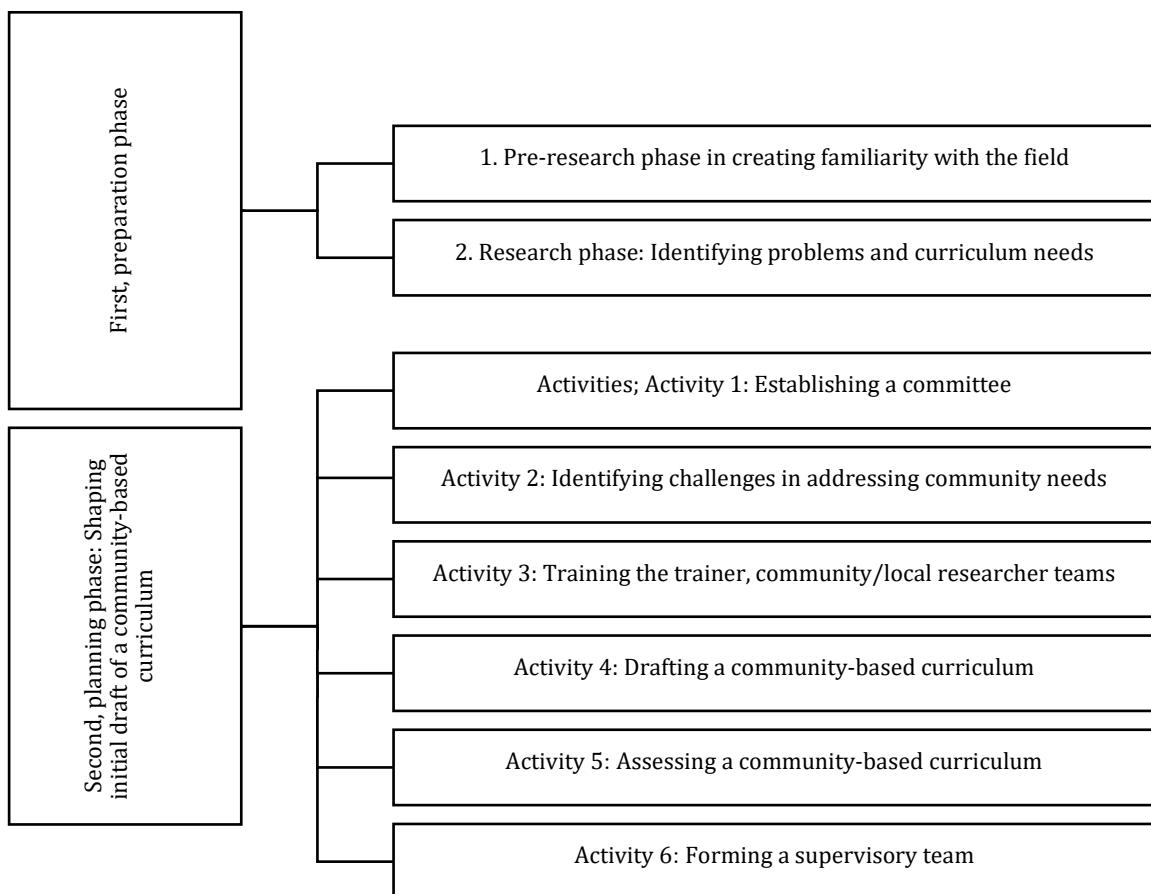


Figure 2: Nuanced initial design processes for the community-based curriculum

5. DISCUSSION

The curriculum development and design of the local wisdom on the palmyra palm at the Huai Krot subdistrict community, Sankhaburi district of Chai Nat province, involves active participation from the community and local stakeholders. This collaborative effort is facilitated through the establishment of a community-based curriculum development committee, which comprises community leaders, knowledgeable individuals, educators, learners, and researchers from the central region. This educational management approach can be considered as one derived from the genuine requirements of both students and the community. Section 28 of the National Education Act 1999 (National Education Act 2542 BE, 1999), stipulates that the process of curriculum development should integrate community involvement and local wisdom with the aim of fostering a sense of appreciation among learners and equipping them with skills relevant to their future careers. Furthermore, the community exhibits a steadfast commitment to the preservation and conservation of their homes and local resources, specifically the palmyra palm and the local wisdom associated with it. The findings of this study's analysis on utilization align with the aforementioned statement, indicating that learners exhibit a sense of pride in their own work and possess a genuine recognition and appreciation for the local wisdom and resources associated with the palmyra palm.

The local wisdom on palmyra palm curriculum that was developed is an innovative curriculum that is being created with the active participation of the community and local residents through a community curriculum development committee. It is an educational arrangement that arises from the needs of students and the community. The curriculum design of the local wisdom community is called "School of Palmyra Palm." The curriculum structure consists of a short course where the instructor assumes the role of a local wisdom teacher. Upon successful completion of the community curriculum, learners will be awarded a certificate that clearly states the knowledge and skills they have acquired and developed. Our project employs PAR, a method seldom utilized in local-based curriculum development. Commonly, curriculum development relies heavily on the expertise and template provided by central authorities or follows a curriculum development model for regular and formal education. In contrast to the work of Yufiarti et al. (2018), who used the ADDIE development

model to create their local wisdom model, they did not adequately consider the involvement of the local community and the needs and resources of the learners, including the community's way of doing things.

The community-based curriculum is a localized educational framework that leverages available community resources to facilitate learning for both students and educators. The present discourse concerns the local wisdom pertaining to the content and locations for acquiring knowledge and practical experience related to the palmyra palm. Aspiring learners possess the autonomy to select specific areas of wisdom acquisition that align with their individualized challenges and requirements. The act of learning and transferring local wisdom is believed to be instrumental in enhancing the resilience and cohesion of the community (Thammalangka, 2012). The community-based curriculum's structure is a short-term educational program specifically designed for the communities of the Huai Krot subdistrict. Rather than utilizing a standardized curriculum derived from a template provided by the central educational system, students have the autonomy to select their course of study based on their individual requirements. The recommended duration for both theoretical and practical learning sessions is a minimum of 6 hours per unit of knowledge. When studying all knowledge areas, the total time required for completion is 48 hours. According to the findings of Soopunyo et al. (2012), as well as Promata and Khamawattana (2016), it has been observed that students engage in a form of learning that is aligned with their future careers. This learning approach involves selecting courses based on their existing competencies. The curriculum design adheres to the principles of curriculum development, encompassing specific objectives, class time organization, instructional activities, lesson plans, learning materials, and assessments that target behavioral outcomes. The content pertains to the collective knowledge and insights within a community, derived from rigorous research and intended for practical application. This knowledge is disseminated by local experts in various fields of study, commonly referred to as wisdom teachers. Furthermore, a comprehensive assessment is conducted to examine the perspectives of both students and teachers, ensuring that the short-term vocational courses offered by educational institutions adhere to the established standards (Office of the Vocational Education Commission, 2015).

The instructors are the expert in the field of palmyra palm cultivation, possessing extensive knowledge, skills, and experience. They are committed to imparting wisdom through various instructional methods, including verbal communication, practical demonstrations, and hands-on activities. Emphasis is placed on practical training to enhance professional growth and application in everyday life, utilizing authentic personal media and specialized equipment. Additionally, there exists a vocational training center known as the Sufficiency Economy Learning Center for Palmyra Palm Conservation. This aligns with the findings of Maliwong (2004), who concluded that the instruction of local wisdom should be facilitated by individuals who possess local wisdom themselves, such as community leaders or local experts. This approach enables learners to acquire knowledge from those who have firsthand experience and allows for practical application and demonstrations by local speakers.

Students make decisions about their academic pursuits based on their individual needs, aptitude, and personal fulfillment, taking into account the body of knowledge related to local wisdom on the palmyra palm that aligns with their expertise or interests. The pedagogical framework employed in this educational setting is founded upon the principles of learner-centered philosophy, Learning Psychology, and the National Education Act of 1999, with an emphasis on practice-based learning. Hence, in accordance with the learner-centered theory and the natural management of local knowledge, the acquisition of wisdom related to climbing palmyra palm trees and extracting nectar from them is deemed flexible. However, despite the significance of this wisdom and the challenge of its limited transmission, only three students opted to pursue its learning. The instructors conveyed that a previous training session had been conducted on the technique of climbing palmyra palm trees to gather nectar. During this session, the participants were able to climb the palmyra palm trees successfully. However, they encountered difficulty in collecting nectar from the palmyra palm cane buds. This particular skill required consistent practice over an extended period of time in order to be proficient.

6. CONCLUSIONS

The community-based curriculum on local wisdom on the palmyra palm at Huai Krot community in the Sankhaburi district of Chai Nat province is an outcome of a PAR process conducted during the research preparation and planning phases. In summary, it is evident that individuals undergoing training or education should be instructed to encourage a palmyra palm plantation due to the scarcity of such plantations. This can be achieved by incorporating local wisdom of palmyra palm cultivation into teaching and learning practices. The local wisdom curriculum on palmyra palm encompasses a pedagogical approach that facilitates community members' acquisition of knowledge through self-directed learning under the guidance of knowledgeable individuals. The learning activities for occupational specialists in the field of palmyra palm are designed to be

adaptable and accommodating to the individual interests and availability of the learners. The target demographic for prospective students encompasses individuals of various age groups, including young adults, adolescents, and senior citizens. These individuals seek to utilize their leisure time effectively by acquiring knowledge and skills that can enhance their financial resources. Additionally, this group includes unemployed individuals as well as those who are currently employed but are interested in pursuing a supplementary income career in the field of palmyra palm. The local wisdom on palmyra palm encompasses a body of knowledge that is utilized by individuals who possess expertise in their respective fields. The educational process affords students the opportunity to engage in decision-making and select areas of study that align with their personal interests, particularly in relation to the local wisdom on palmyra palm. This approach aims to maximize learning outcomes by placing a strong emphasis on self-directed practice. Teachers are individuals who are part of the local community due to their expertise, particularly if they are educators who are currently or have previously been employed in the palmyra palm industry. In addition to possessing knowledge in the subject matter of palmyra palm, teachers should possess certain qualifications that enable them to effectively transfer knowledge, skills, and experiences to their students. These qualifications include a commitment to covering all relevant subjects without omitting any essential content, maintaining fairness in their teaching practices, demonstrating practical applications of the subject matter, and evaluating students based on real-world conditions.

The preliminary version of the community-based curriculum pertaining to local wisdom on the palmyra palm is referred to as the "School of Palmyra Palm." This curriculum is designed as a short course, encompassing a total of 48 hours of study. It comprises a knowledge-based learning plan, knowledge sheet, work procedure sheet, work order, and performance evaluation sheet. The duration of class time is subject to variation, with a minimum duration of 3 hours. The educators in this context are individuals who possess expertise in local wisdom, specifically in the areas of palmyra palm cultivation and the preparation of sweet dishes derived from this plant. Upon successful completion of the community-based curriculum, learners will be awarded a certificate that acknowledges the knowledge acquired or a certificate of training.

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