

# Intangible cultural heritage: The wisdom of Teen Jok weaving of Lao Khrang Ethnic Group in Phrong Madua Sub-district Municipality, Mueang District, Nakhon Pathom Province

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## Abstract

The objectives of this qualitative research were to study: 1) the wisdom of Teen Jok weaving of Lao Khrang ethnic group in Phrong Madua Sub-district Municipality, and 2) Teen Jok weaving techniques of Lao Khrang ethnic group in Phrong Madua Sub-district Municipality. The 8 informants were ancient local weaving group members in Phrong Madua Sub-district Municipality, selected through the purposive sampling method. Data collected by using an in-depth interview, and the instruments were a semi-structured interview. Data were analyzed by using content analysis. The results found that:

1. The wisdom of Teen Jok weaving of Lao Khrang ethnic group in Phrong Madua Sub-district Municipality uses cotton and silk. The weaving technique is “Jok”, generating beautiful and unique weaving fabrics which express lifestyle, belief, custom, and tradition of Lao Khrang community. The weaving patterns and designs are geometry and represent the identity of flower pattern and Dvaravati pattern.

2. The weaving apparatus of Lao Khrang ethnic group is an ancient local loom. The weaving technique is “Jok” which is weaving fabric with quill to create various patterns. During weaving, the weaver add more warp and weft yarns to slip up and down, and arrange thread lines continuously for periodical design. This local “Jok” weaving technique can alternate the colors caused different patterns and colors.

**Keywords:** intangible cultural heritage, weaving, Teen Jok fabric, ethnic group, Lao Khrang

**Article history:** Received 14 October 2021, Revised 8 June 2022, Accepted 8 June 2022

## 1. Introduction

Thailand has the national cultures generated and preached from ancestors, and developed in Thai society with unique identities in all customs, traditions, lifestyle, and local wisdom causing traditional, valuable, and finely arts and crafts. In addition, the arts and crafts of various murals which are inherited from generation to generation, these national intangible heritages are worth cultural assets.

Cultures are as water source of industrial creation in which local community can bring locally culture stories creating distinction and selling point to increase value added in national economics fulfilling government policy of the National Strategy and the Twelfth National Economic and Social Development Plan aiming to develop the economics of Thailand to creative industry for “stability worth and sustainability”.

The weaving wisdom of Lao Khrang ethnic group is one of various wisdoms and ethnic groups in Thai society which express the prosperity of culture, lifestyle and living of the community. The weaving is the local wisdom of Lao Khrang ethnic group’s living for long. Lao Khrang people are bound to weaving due to the wedding ceremony of Lao Khrang, the brides have to weave the fabric used in the ceremony, also weaving fabric is leisure activity of women from farming using in the household. Besides in household use, Lao Khrang people

bring woven fabric to monks in different festivals and for art and craft job. Obviously, the woven fabrics of Lao Khrang people are distinguished, finely and creative which different from other ethnic groups causing from combination of traditional wisdom with Thai- Lao Khrang people lifestyles. These unique and different woven fabrics are art and craft products which identify the culture, prosperity of Thai nation, and creative thinking of Thais. Importantly, weaving wisdom is also a cultural heritage of Thailand’s wisdom, which is a social capital that is the basis of the creative economy, supporting economic driving policies based on the use of local Thai wisdom. The knowledge of the villagers has been combined with modern science and technology creatively and increases the economic value to a higher added value, resulting in the distribution of income into the community reduce inequality to build a strong Thai community and society.

Phrong Madua has been the ancient community with historical evidence for more than 200 years, most ancestors were Lao Khrang emigrated from Luang Phabang, People’s Democratic Republic of Laos through Chiang Saen to Baan Phrong Madua, Nakhon Pathom bringing Lao Khrang cultures and customs in living to Lao Khrang, Baan Phrong Madua community lifestyles. The handcraft weaving is local culture of Lao Khrang, Baan Phrong Madua community for a long time but with rapid changes in society and new trend society are interested more in fabrics from industry, the weaving wisdom fading

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from the community. Then, Pitakpol Tankittiwat, Mayor of Phong Madua Subdistrict has the policy to support, conserve, inherit, and publicize the local wisdom in fabric weaving of Lao Khrang in the community, and support groups and cooperation as well.

Lao Khrang weaving group in Phrong Madua Sub-district Municipality is formed from Lao Khrang people who desire to conserve and inherit weaving local wisdom and promote community job. The people in the community who aware of ancestors' wisdom, apply and inherit Teen Jok weaving continuously, support Teen Jok weaving products workshops and development for finely pattern weaving fabrics which affecting community identity. Furthermore, people are campaigned to wear and publicize Lao Khrang weaving fabrics, make a job and income for community, and propel grassroots economy for local's security.

According to the literatures review about Lao Khrang fabrics and Lao Khrang ethnic group in Phrong Madua subdistrict municipality, there are many interesting researches as Yodkaew, P. (2021 [15] 2021 [13], 2020 [12], 2019 [11], 2016 [14]); Areechongcharoen, S. (2014) [1]; Tuanthet, S. (2013) [10]; Srisombat, R. (2011) [7]; Sriphan, S. (2019) [6]; Rasmipaiboon, N. (2017) [5]; Thongborisut, U. (2004) [8]; and Chatbutr, V. (2003) [3], studied about custom, culture, weaving wisdom and Lao Khrang weaving patterns of Lao Khrang ethnic groups in different aspects.

The researcher is interested in the study about the wisdom of Teen Jok weaving of Lao Khrang ethnic group in Phrong Madua Sub-district Municipality as a guide to research about Lao Khrang ethnic group cultures to conserve and inherit Lao Khrang cultures and customs. Being a source to support cultural tourism of Nakhon Pathom, cultural exchanging between locals, to acknowledge accurately to children, youths and people, continue to learn local cultures and wisdoms for people to be proud their valuable cultures, and conserve and inherit national civilization constantly and sustainably.

## 2. Objectives

1. Study the wisdom of Teen Jok weaving of Lao Khrang ethnic group in Phrong Madua Sub-district Municipality, and
2. Study Teen Jok weaving techniques of Lao Khrang ethnic group in Phrong Madua Sub-district Municipality.

## 3. Methods

This qualitative research was divided into steps as follows:

1) Documentary method. The researcher reviewed documents related to this study such as academic documents, research reports, articles, journals, dissertations, and electronic sources.

2) Fieldwork. The researcher used the participant observation method to collect information about area, procedures, relationship, lifestyles, or local people's behaviors, storytelling; and in-depth interview of 8 key informants, including leaders, local philosopher, and municipality weaving group members. The researcher selected "weaving group" of Lao Khrang ethnic group in Phrong Madua Sub-district Municipality, Mueng, Nakhon

Pathom through the purposive sampling method because in this area, there are Teen Jok weaving fabric wisdom inheritance and Teen Jok weaving fabric association of Nakhon Pathom. Then the researcher analyzed, synthesized, and concluded data. The study was divided into 2 stages:

### Stage 1: Preparation

1. Study the community (primary) to analyze Lao Khrang community context and weaving wisdom in Phrong Madua Sub-district Municipality by using a survey of weaving wisdom experts, philosophy interview, and documents and related sources review.

2. Develop and check the quality of collecting instruments which are 1) an interview form about Lao Khrang community context and weaving wisdom, 2) focus group questions about Teen Jok weaving of Lao Khrang ethnic group in Phrong Madua Sub-district Municipality.

### Stage 2: Transect walk and fieldwork

1. Transect walk and survey weaving area, loom, weaving materials and equipment such as silk, cotton, silver threads, gold threads, and empirical evidences in the community.

2. Collect data about Teen Jok weaving wisdom context using a semi-structured interview and focus group to collect information and suggestions from 8 key informants to collect information and suggestions from 8 key informants.

### Data Analysis

Data were analyzed into 2 sections:

Section 1 Community context and weaving wisdom data from interview form by content analysis and data presentation with historical stories narration and visual display [9].

Section 2 Weaving wisdom data from interview form and focus group, Teen Jok weaving techniques from a focus group were content analyzed and presented in form of narration with diagram.

## 4. Research Results

The results of this study were as follows:

### 4.1 Teen Jok weaving wisdom of Lao Khrang ethnic group

Weaving fabric is local wisdom and grounded culture about clothes that are handicrafts acknowledged from ancestors combined with talent, environmental influences, and creative thinking to design finely and unique patterns, which can be the combination between the old and new wrought patterns.

Furthermore, weaving fabric can be weaved with traditional patterns mixing together with new patterns by separating the obvious starting point of each pattern. The aim of traditional weaving of Lao Khrang is to weave fabric in the household and in various ceremonies such as making merit, wedding, or as gifts or souvenirs in return of a token of bridegroom's respect, etc. The study found that the wisdom of Teen Jok weaving of Lao Khrang ethnic group in Phrong Madua Sub-district Municipality used cotton and silk, and the weaving technique was "Jok" generating beautiful and unique weaving fabrics which express lifestyle, belief, custom, and tradition of Lao Khrang community. The weaving patterns and designs were geometry and represented the identity: flower pattern and Dvaravati pattern. [15]



Figure 1: Lao Khrang woven cloth with fig flower pattern.



Figure 2: Nattawan Karuehabodee

Teen Jok weaving which is weaved with traditional weaving, and uses an ancient local loom. The weavers weave handmade fabric, called handmade fabric weaving. The woven fabric is different patterns due to the weavers learned the patterns of weaving that conveyed from ancestors' weaving wisdom and study more patterns of ancient weaving fabrics combined with the creative imagination themselves. The weaving fabric popularly used in red which is dyed with shellack both in warp and weft yarns, but special weft threads are in yellow. For red, black, orange, and green are component colors. One weaving fabric is consisted of 5 colors. At present, the weaving patterns are developed more modern. Some fabrics are consisted of more than 5 colors as white, pink, light blue, purple, and cream. The skillful weavers use contrast color mixed together for harmonious patterns to be finely weaving. The weaving pattern are divided into 2 types:

#### 1. Natural patterns

1.1 Florist patterns such as fig, zinnia, orange jasmine, mace, pine flower, bullet wood, etc.

1.2 Tree patterns such as solanum, bamboo, tree, pine, etc.

1.3 Animal patterns such as bird, Naga, elephant, horse, etc.

1.4 Water source and abundance in community patterns such as rain, waterfall, mountain, etc.

#### 2. Geometry patterns

2.1 General geometry such as triangle, rhombus, straight

line, curved line, circle, and ellipse, etc.

2.2 Appliance patterns such as necklace, bell, light, curl line as spiral, and hook, etc.

Fig pattern is the pattern that Nakhon Pathom Cultural Government Agency supports the local weaving philosophy and weaving groups of Phrong Madua Sub-district Municipality to create as a pattern for weaving. This pattern is derived from Phrong Madua community history that there were many fig trees, so it is called "Phrong Madua Community", as the name of temple and community. The community historical story leads to imagination and creative thinking in weaving finely fabric "fig weaving pattern" that show the identity of local community lifestyle. The inventor who creates, develop and design fig pattern is Nattawan Karuehabodee, ancient local weaving philosophy, who is skillful in weaving ancient local fabric and new modern weaving patterns that synthesized from ancient weaving knowledge. She also creates and combines both together to product weaving finely products, and develops the qualified and standardized fig pattern weaving fabrics. This pattern includes both buds and blooms, in 1 line of fig pattern, there are 52 buds and 54 blooms, and in 1 fabric can be included as many as fig pattern lines depending on pattern design of the weavers and users. The standard length of the fabric is about 2.56 meters. In addition, the historical evidences indicated that Nakhon Pathom was the location of ancient kingdom, Dvaravati Kingdom, so Nattawan Karuehabodee invented creative Teen Jok weaving



**Figure 3:** Ancient local loom or local loom.

pattern “Dvaravati” leading Phrong Madua Community to have weaving fabric showing identity, uniqueness, and finely of Lao Khrang.

#### *4.2 The weaving technique of Lao Khrang ethnic group in Phrong Madua Sub-district Municipality*

The weaving apparatus of Lao Khrang ethnic group was an ancient local loom, and the weaving technique was “Jok” which is weaving fabric with quill to create various patterns. During weaving, the weaver will add more warp yarns to slip up and down, and arrange thread lines continuously for periodical design. This local “Jok” weaving technique can alternate the colors caused different patterns and colors.

According to Nattawan Karuehabodee [4], ancient local weaving philosophy acknowledged that the weaving apparatus of Lao Khrang ethnic group was an ancient local loom. During weaving, the weaver uses the weaving technique “Jok” to create different patterns. S/he adds more warp yarns to slip up and down by using quill, stick, or fingers to tread the yarns up with special warp yarns and arrange thread lines continuously for periodical design mixing different colors and patterns. With this weaving technique, the front fabric is smooth and the back includes joints and nods of warp yarns. The fabric is used to make clothes, and makes time consuming. The ancient local loom is consisted of;

1. Loom frame is consisted of 4 wooden poles, 4 rails up and down sides in each side is stick together which is traditional loom using at present.
2. Batten or reed comb has teeth as comb using to push the weft yarn securely into place, warp to contra-weave weft yarns compressed to fabric. The batten is metal or stainless with variety of sizes depending on the size of fabric. The weaving of Baan Phrong Madua popularly uses 48 batten and 2,800-4,000 weft yarns.
3. Heddle is nylon rope to handle and separate weft yarns into the right category. When handing the heddle up, the weft yarns will be holed so that the shuttle can sharpen the warp threads for the passage of the weft. When slipping the weft yarns, they are placed and left a space and the rope stick to loom frame top that can be moved, and the rope at the button sticks to the treadles. To separate the threads, step on the crossbeam to up and down the heddle, use batten to make hole for warp

yarns. Finely pattern fabric will be used with many weft yarns and heddles, keeping heddle will be different depending on the structure and pattern of fabric. Phrong Madua group uses 2nd heddle type of weaving.

4. Shuttle contains weft yarns. There are many kinds of shuttles made of bamboo, wood of plastic with average weight for stability when dashing the shuttle. The shuttle is smooth with no splinter, 20-centimeter long, with the hole in the middle. Little curved in 2 tips helps insert the threads easily.

5. Front loom is the loom that stays in front using for stretching wooden stick, made of bamboo.

6. Loom rail is the sticks cross over loom frame. The rail on the top is made of 3-4 bamboo sticks used to tie wooden sticks, sided wood and reed.

7. Roll loom board is the board to roll one tip of the warp yarn to keep and arrange the warp yarns. The roll loom board helps to stretch the threads when one tip tied to weaving fabric roll.

8. Wooden stick is 2 sticks in the middle of roll loom board, made of wood. At the head, the wooden stick is used for hanging with loom rail and tied with front loom to control the sticks not to swing while weaving.

9. Heddle stick is 2 sticks for holding loom or heddle, at the ends will be eye for hanging with roll loom board. 10. Overhanging beam is loading loom tied with the rope on the top for sticking with loom. There is only one overhanging beam no whether using 2, 3, or 4 shafts.

11. Heddle feet or treadles or crossbeams are 2-4 boards depended upon the amounts of shafts or heddles. They are tied to the loom shafts for pulling 2-4 loom shafts, up and down warp threads making hole for shuttle. They are circle with 1.5-2 meters and pass across with loom frame.

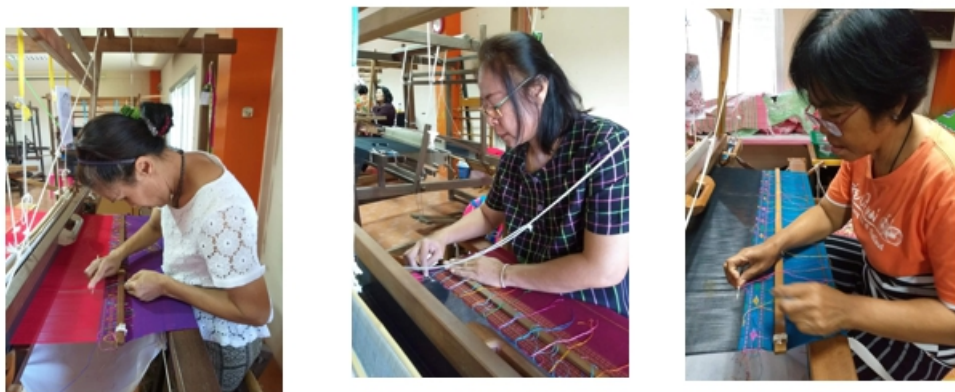
12. Spool is the stick tied at the tip of warp yarn through batten of woven cloth, made of 120-180-centimeter square board.

13. Ba Kee is the 2 boards supporting the ends of the spool. Each board widely depends upon the width of loom.

14. Seat for weaver is the board for weaver. The length is as widely as the length of loom frame.

15. Heddle frame is the stick stretched as the edge of weaving fabric wide to make the cloth stretching for heddle. At the tips of heddle frame are 2 lobes sharp or 2 lobes sharp brass.





**Figure 4:** The members of the weaving group are weaving the fabric with a fig flower pattern.

### Principle motion of local loom

Nattawan Karuehabodee acknowledged the principle motion of the local loom as follows; 1. Shedding is the raising of the heddle and part of the warp yarn to form a shed through which the filling colorful yarn, carried by a shuttle, can be inserted, forming the weft, then change the heddle to separate the threads into 2 parts-up and down, forming the shed.

2. Picking. The weaver will use shuttle to pass the weft yarn into the shed.

3. Battening. When the weft yard passes through the shed, the weaver will step on the heddle feet to batten the weft yard to arrange with the warp yarn tightly being fabric.

4. Keep and roll the fabric. When finishing some fabric, the weaver will adjust the warp yarn loosely before kept and weave continuously for desired fabric.

In addition, Nattawan Karuehabodee informed that weaving is consisted of “warp threads” stretched across the fabric length in the loom frame, and in the vertical spool. The other is “weft threads” rolled in the shuttle as a lead to pick with warp threads which combine together as fabric length. In each picking, the threads are picked to the end of each side and picked back to lead to straight edge of the fabric. The pattern depends on the fabric pattern and the weaver’s technique. [4]

### The steps of weaving

Nattawan Karuehabodee explained the simple steps of weaving as follows;

1. The weaver prepares a loom, desired color threads, shuttle, and loom yarn; connects the new loom yarn with the old one in the previous loom and batten; and stretches the loom for weaving.

2. The weaver prepares desired color thread spools and put them in the shuttle. The threads pass through small eyes beside the shuttle. When the first spool has finished, the weaver adds more thread spools in the shuttle as the desired pattern.

3. The weaver ties the rope with one the heddle stick and to the one heddle feet, and do the same with the other side. When stepping the heddle feet, loom yarn will be spaced due to the pull. The weaver passes the shuttle through the space and battens the threads, then steps on the other heddle feet and passes the shuttle back. The weaver pulls the reed to batten with the kept threads and steps the other heddle feet. The weaver does

the same steps to get the desired length of fabric.

Moreover, Nattawan Karuehabodee concluded that the weaving time of a weaver who is skillful is one day per one fabric with plain color, and 2 weeks per one fabric for normal weavers. The time of weaving is upon the difficulty of pattern and the variety of “Jok” techniques, more techniques need more time.

## 5. Discussion

### Part 1 Teen Jok weaving wisdom of Lao Khrang ethnic group

The study found that the weaving used cotton and silk, and the weaving technique was “Jok” generating beautiful and unique weaving fabrics which express lifestyle, belief, custom, and tradition of Lao Khrang community. The weaving patterns and designs were geometry and represented the identity: flower pattern and Dvaravati pattern. This is in accordance with the study of Yodkaew, P. (2020), which found that the wisdom of Teen Jok weaving of Lao Khrang ethnic group in Phrong Madua sub-district municipality was supported, conserved, inherited, and publicized from Phong Maduea Sub-district municipality. Lao Khrang weaving group was operated to conserve the weaving techniques and ancient patterns that represent local lifestyles related to the environment and natural resources, such as trees, flowers, rivers, mountains, animals, etc., combining with local identity and weavers’ imagination lead to finely fig pattern weaving products to make clothes [12]. This is in appliance with the study of Yodkaew, P. (2021) (2019), indicated that Lao Khrang weaving merged from Lao Khrang local wisdom with finely, unique weaving expressing living, belief, and custom of the community. The weaving patterns included natural pattern and geometry pattern [13] [11] which correspond with Tuanthet, S. (2013), who said that the patterns of the fabric divided into 2 groups of geometry and natural patterns, used bright colors-red, blue, yellow, light blue, and orange. The weavers were acknowledged from learning by doing. [10]

### Part 2 The weaving technique of Lao Khrang ethnic group in Phrong Madua sub-district municipality

The study found that weaving group use Jok weaving technique used is weaving fabric with quill to create various pat-

terns. During weaving, the weaver add more warp yarns to slip up and down, and arrange thread lines continuously for periodical design. This local “Jok” weaving technique can alternate the colors which create different patterns and colors. This is agreed with Chancham, J. (2014), said that the weaving technique was weaving fabric with quill which is very important in all culture, society and local economy [2], and with Tuanthet, S. (2013), revealed that the local people weaved fabric for sales and to wear in crucial ceremonies. The traditional weavings are Mudmee, Jok, and Khid weaving [10].

## 6. Suggestions for Further Study

1. Study of weaving design and development of new creative Jok weaving patterns that express the identity of Lao Khrang ethnic group in Nakhon Pathom.
2. Investigation of local weaving product development in different ways such as clothes, bags, hats, and shoes, etc.
3. Action research about factors driven Teen Jok weaving wisdom to youths for sustainable development.
4. Qualitative research in the same aspect, such as the satisfactory of Teen Jok weaving users to find out product development guidelines and add more value of cultural fund.

## Acknowledgments

This research was financially supported by Thailand Science Research and Innovation (TSRI) through the Science Research and Innovation Promotion Fund of fiscal year 2020. We would like to thank Mr. Pitakpol Tankittiwat, Mayor of Phong Maduea Subdistrict, Thailand, Mr. Yannapat Yodkaew, Director of the Office of Arts and Culture Nakhon Pathom Rajabhat University, Thailand for supporting the research process.

## References

- [1] S. Areejongcharoen, Research report entitled A study of ancient woven design of Laochung, Baan Kokemor Uthai Thani province. Bangkok: Rajamangala University of Technology Phra Nakhon, 2013.
- [2] J. Chancham, An approach to strengthening people participation in Jok Fabric wisdom transmission to Thai-Yuan community youth at Tambon

- Kubua, Amphoe Mueang, Changwat Ratchaburi. Master of Arts in Human and Community Resource Development. Kasetsart University, 2014.
- [3] W. Chatbutr, Culture and Approach of Conserving Native Textile in Lao Krung's Way of Life: A Case Study of the Community in Tambon Khok Mor, Amphoe Thap Tan, Uthai Thani. Master of Arts thesis Department of Thai Studies, Thonburi Rajabhat University, 2003.
- [4] N. Karuehabodee, Wisdom teacher and knowledgeable person, Interview, 20 May 2020.
- [5] N. Ratsameepaibul, The research report “Development Standard Quality Products of Jak khrang fabric, moo 4, Baanhung, Tambon ahuykamin, Danchang District, suqhanburi”, Bangkok: Suan Dusit Rajabhat University, 2006.
- [6] S. Sriphan, Local wisdom of Lao Krang Thai Native in Dermbangnarng-buat Suphanburi Province. Master of Public Administration Thesis Department of Public Administration, Khon Kaen University, 2008.
- [7] R. Srisombat, Lao Krang Woven Fabric: The Conservation, Restoration and Development of Clothing Products in Their Ways of Life. Doctor of Philosophy Thesis Department of Cultural Sciences, Mahasarakham University, 2010.
- [8] A. Thongborisut, Factors related to Pha Chok traditional products of Lao Cee and Lao Khrang community, Doem Bang Nang Buat district, Suphan Buri province. Master's Thesis Department of Agricultural Extension, Kasetsart University, 2004.
- [9] P. Traimongkolkul, S. Chatrathorn, Research Design, 6th edition, Bangkok: Kasetsart University Press, 2010.
- [10] S. Tuanthet, A Study of Thai Local Wisdom in Native Fabrics Focused on the Ethnic Lao-Khrang in Suphanburi Chainard and Uthaitani. Master of Education in Art Education, Srinakharinwirot University, 2013.
- [11] P. Yodkaew, Fig flowers Laos Khrang's Cloths: Woven Fabric of Lao Khrang Ethnic Group in Phrong Madua municipal district Muang District Nakhon Pathom Province. Presented at The 6th Rajabhat University National and International Research and Academic Conference (RUNIRAC 2019), 2-5 December, 2019. Phetchaburi: Phetchaburi Rajabhat University, 2019.
- [12] P. Yodkaew, The conservation of Laos Khrang's woven cloths and Buddhist Cultural Heritage of Laos Khrang Ethnic in Phrong Madua Subdistrict Muang District Nakhon Pathom Province. Presented at the 12th Nakhon Pathom Rajabhat University National Conference, 10 July, 2020. Nakhon Pathom: Nakhon Pathom Rajabhat University. (2020).
- [13] P. Yodkaew, The existence of Teen-Jok weaving of Lao Khrang Ethnic Group in Nakhon Pathom Province. Journal of Liberal Arts and Service Industry 4(1) (2021) 79-91.
- [14] Yodkaew, P. The Study of Lao Khrang Ethnic Identities in Phrong Madua Subdistrict Muang District Nakhon Pathom Province. Presented at the 6th SRU National Conference, 15-16 August, 2016. Songkhla: Songkhla Rajabhat University (2016).
- [15] P. Yodkaew, Research report on The Development of Jok Woven Textile creative Products and Packaging for Nawatwithee tourism Development of Lao Khrang Ethnic Group in Nakhon Pathom province, Nakhon Pathom: Nakhon Pathom Rajabhat University (2021) 89-100.