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Lanna Sor: Wisdom Management
การจัดการภูมิปัญญาซอล้านนา

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Abstract

Purpose of the study: This study aims to 1) investigate Sor (single-reed pipe) of Lanna wisdom transference and 2) develop the system for Sor of Lanna wisdom management.

Methodology: Qualitative research approach and a process of knowledge management were used to with the sample group was twelfth Lanna Sor masters (called Kru Sor), who are praised as Petch Rajabhat-Petch Lanna of Chiang Mai Rajabhat University.

Main Findings: The research results revealed that Sor masters (Kru Sor) have transferred knowledge by storytelling, explaining, answering questions, demonstrating, practicing, al established the local school for promote Sor learning and teaching. Sor of Lanna wisdom was transferred from Sor masters from seniors and friends who are Sor of Lanna artists (called Jang Sor), and from various media. Sor of Lanna wisdom management system was developed; consisting of 4 continuous knowledge management cycle steps: 1) identification, creation, and acquiring Sor of Lanna wisdom by using recording technology, 2) systematic Sor of Lanna wisdom management by codification and refinement and developing a database, 3) sharing Sor of Lanna wisdom via various types of electronic and online channels, and 4) learning and practicing for Sor of Lanna wisdom to increase awareness and

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experiences through online lesson clips. Sor of Lanna wisdom management system has an overall effectiveness at high level.

Applications of this study: This system encourages sharing and exchanging knowledge and experiences. Additionally, learn from one another as well as create new knowledge.

Keywords: Sor, Lanna folk song, Wisdom management, Wisdom management system

บทคัดย่อ

วัตถุประสงค์: การวิจัยครั้งนี้มีวัตถุประสงค์เพื่อ 1) ศึกษาการถ่ายทอดภูมิปัญญาซอพื้นบ้านล้านนา และ 2) พัฒนาระบบการจัดการภูมิปัญญาซอพื้นบ้านล้านนา

วิธีการศึกษา: การศึกษานี้ใช้การวิจัยเชิงคุณภาพและกระบวนการจัดการความรู้ กลุ่มตัวอย่างเป็นครูซอพื้นบ้านล้านนาซึ่งได้รับการยกย่องเป็นเพชรราชภัฏ-เพชรล้านนาของมหาวิทยาลัยราชภัฏเชียงใหม่ จำนวน 12 ท่าน

ข้อค้นพบ: ผลการวิจัยพบว่าครูซอพื้นบ้านล้านนาถ่ายทอดภูมิปัญญาซอพื้นบ้านล้านนาโดยการเล่าเรื่อง การอธิบาย การตอบคำถาม การสาธิต การฝึกฝน และการเปิดโรงเรียนหรือศูนย์การเรียนรู้ซอพื้นบ้านล้านนาร่วมกับหน่วยงานและโรงเรียน รูปแบบการถ่ายทอดความรู้ซอพื้นบ้านล้านนาจากครูซอพื้นบ้านล้านนา จากช่างซอรุ่นพี่หรือเพื่อนช่างซอ และจากสื่อต่าง ๆ ระบบการจัดการภูมิปัญญาซอพื้นบ้านล้านนาประกอบด้วย 4 กระบวนการจัดการที่ต่อเนื่อง ได้แก่ การระบุและการรวบรวมภูมิปัญญาซอพื้นบ้านล้านนาใช้เทคโนโลยีในการบันทึกข้อมูล การจัดการภูมิปัญญาซอพื้นบ้านล้านนาอย่างเป็นระบบโดยการเข้ารหัส การปรับแต่งและการพัฒนาฐานข้อมูล การแบ่งปันภูมิปัญญาซอพื้นบ้านล้านนาผ่านช่องทางอิเล็กทรอนิกส์และช่องทางออนไลน์ประเภทต่าง ๆ และการเรียนรู้และฝึกฝนภูมิปัญญาซอพื้นบ้านเพื่อเพิ่มความตระหนักและประสบการณ์ผ่านบทเรียนออนไลน์ ระบบการจัดการภูมิปัญญาซอพื้นบ้านล้านนามีประสิทธิภาพโดยรวมในระดับสูง

การประยุกต์ใช้จากการศึกษานี้: ระบบการจัดการภูมิปัญญาซอพื้นบ้านล้านนาช่วยส่งเสริมการแบ่งปันและการแลกเปลี่ยนองค์ความรู้และประสบการณ์เกี่ยวกับภูมิปัญญาซอพื้นบ้านล้านนา ซึ่งการเรียนร่วมกันก่อให้เกิดองค์ความรู้ซอพื้นบ้านล้านนา

คำสำคัญ: ซอ เพลงพื้นบ้านล้านนา การจัดการภูมิปัญญา ระบบการจัดการภูมิปัญญา

Introduction

Lanna is the name of an ancient kingdom in the Northern-Thailand and Lanna wisdom is the social and cultural development of adaptation, adjusting lifestyle to an environment and then continuously create, accumulate, and inherit those experiences for a long time (Na Thalang, 2001) There deserves to promote, preserve, and disseminate such knowledge. Sor is the musical instrument in Northern part of Thailand which relate to Lanna wisdom is tacit knowledge deeply embedded in a person, known as Sor Lanna master (called Kru Sor : Por Kru (male Sor master) and Mae Kru (female Sor master). From the initial survey, biographies and works of Kru Sor were documented as well as short video clips on YouTube. However, the tacit knowledge of Kru Sor has not been collected in a form of preservation and knowledge management. The researcher therefore aims to apply the knowledge management theory to Lanna Sor wisdom, focusing on a pattern and a process of transferring knowledge of Kru Sor. The tacit knowledge of Lanna Sor wisdom was captured and transferred into explicit knowledge by using the SECI Model (Nonaka & Takeuchi, 2000), the conceptual framework for systematically collecting, categorizing, storing, retrieving, sharing, and transfer knowledge using information technology. Lanna Sor wisdom management system can be self-learning source for academics, teachers, and students to learn, exchange, and share knowledge and experience, leading to Lanna Sor learning community. These would be promote, maintain, inherit and disseminate about Lanna in Thai cultural heritage for a sustainable way.

Literature review

Sor of Lanna wisdom

“Sor” (a folk song of Lanna people) is invaluable since it is a foundation of an inherited society. “Sor” (verb) means of singing or Lanna folk songs singing, also known as “Lanna Sor.” The Lanna Sor wisdom uses the Kham Muang

(Northern-Thai dialect) in both types of Sor; Sor Pod (a solo Sor) and Sor Tong (a duo Sor: Ku Tong-Sor male artist and Sor female artist react with each other in flirtatious manner) to tell stories, narratives, and events along with Lanna folk instruments. Department of Cultural Promotion (2019) divided Lanna Sor into two types: 1) Sor Chiang Mai, also known as Sor Kao Pi, Pi (Northern-Thai flute) or bagpipes and Pi Jum band (Pi Jum 3, Pi Jum 4, Pi Jum 5) were main accompaniment. There are seven main Sor melodies; Tang Chiang Mai, Ja Pu, La Mai, Ngue, Burma, Ue, and Phra Lor or Long Nan. 2) Sor Nan is Sor with Saloh (Nan string instrument), Sung (Northern-Thai stringed instrument), and Pin (Nan Sung), also known as Sor Kao Sung (The Lanna Sor Artist Association, 2016).

Most of Sor performances are Sor Don performance presented by Sor artists (Jang Sor) who lively sing along with the prosody of each Sor melodies in response to occasions, events, or places they are in. Sor Don proves the esprit, ability, intelligence of Jang Sor due to Jang Sor have to quickly respond with the other. Sor lyrics are immediately composes depending on situations and events, such as Sor to greet or goodbye people, Sor to invite to join meal, Sor to invite to be joy an event, Sor use for flirting with a girl, Sor for celebration (Sor Poi) like cheerful for who has a new house and ordination ceremony, Sor in Buddhist ceremony to make merits, Sor to describe the gratitude to parents (Department of Cultural Promotion, 2019), even Sor in funeral. Therefore, Lanna Sor wisdom conveys for teachings of morals and the ways of the world to reflect relationship between humans and humans, humans and nature, human and supernatural things, as well as the Lanna cultural of life, such as beliefs, values, customs, traditions, religious institutions, family institutions, occupation, food and nutrition, dressing.

Thus, Jang Sor require good general knowledge, good memory, as well as pursue knowledge regarding to be the Sor expert, who is able to use the surroundings to perform Sor. Also, they need to accurately memorize Sor melodies. In addition, Jang Sor must recognize contents and well practice so that they can

perform posture and make more fun. Jang Sor is one of high abilities and experiences make beautiful and melodious Sor lyrics by their own esprit without having to compose the lyrics before, just only know related information, the Jang Sor can immediately sing Sor to the melody of Sung (Northern-Thai stringed instrument) or Pi (Northern-Thai flute).

Knowledge Transfer

Knowledge is "a dynamic process of justifying personal belief towards the truth" (Nonaka, Toyama, & Komo, 2000). Knowledge transfer focuses on purposeful communication of knowledge from a sender to a receiver. In fact, knowledge transfer is an integral part of knowledge management.

Nonaka & Takeuchi (2000) classified knowledge into two specific categories: 'tacit' and 'explicit'. Tacit knowledge is deeply originated in an individual's experiences. Explicit knowledge is knowledge that can be explained and communicated meaningfully in words and numbers. Tacit knowledge can be transferred through mentoring and coaching (Davenport & Prusak 2000) while explicit knowledge can be transferred by documented processes. These knowledges can be converted from one type to another from interaction between individuals or groups of people, rising spiral conversion processes of the SECI model. The spiral starts with socialization, tacit knowledge exchanging as well as experiences to learn from each other. Externalization, tacit knowledge is converted into explicit knowledge through articles, books, seminars, and video presentations. Combination, explicit knowledge is processed to be more complex and systematic. Information and communication technology, such as online databases and virtual communities, can facilitate knowledge conversion, communication and share information. Consequently, higher level of knowledge, such as models, best practices, handbooks, and information systems will be created (Farnese, Barbieri, Chirumbolo & Patriotta, 2019). Internalization, individuals can learn through actual practices helped to absorb explicit knowledge, allowing them to integrate new knowledge and create new tacit knowledge.

In the past, local wisdom often transferred within a family, especially knowledge about occupation and way of life using available local resources. The process of knowledge transfer starts with adults teaching their children by demonstrated several times and their children actual practicing several times to gain expertise and applied for a career, such as farming, basketry, weaving, molding, and cooking. These have been carried on for keep them alive.

Seniwong Na Ayudhya (2007) concluded that local wisdom is accumulate knowledge and experiences. Local wisdom teachers, especially the elderly, are those who have learned and have accumulated knowledge and experience until they have expertise through various methods of learning and practicing succession. They learned from local wisdom teachers, seniors, and friends as well as self-learning from learning centers or museums. Hence, local wisdom teachers transfer knowledge by storytelling, explaining, answering questions, demonstrating, practicing, experimenting, trying to touch, playing the game, using of supporting media, and competing or contest.

Local wisdom transfer was deeply search for local wisdom resources and then process to explicit knowledge or best practice that requires a long time of practices. After that disseminated to people who want to try and provide feedback on how it has been used, how it should be improved, and what needs to be added or reduced in order to improve production process. Local wisdom will sustain in the society if a process of conservation of unique, worthy, and invaluable local wisdom suits the present and the future.

Knowledge management of local wisdom

The Office of the Public Sector Development Commission (OPDC) and the Thailand Productivity Institute (2006) suggested 7-step of knowledge management process as follows:

1. Knowledge identification is to identify knowledge and analyze existing knowledge formats and sources by answering questions what necessary knowledge is and whether we have such knowledge or not.

2. Knowledge creation and acquisition from various sources in order to create content to fulfill needs by answering questions where such knowledge is, what format of such knowledge is, and how such knowledge is collected.

3. Knowledge organization is to classify knowledge to develop a system easily and conveniently; search and use by answering questions how knowledge created will be collected and how to classify topics.

4. Knowledge codification and refinement is to create knowledge format and language in the same standard as well as composing and updating content to fulfill the needs by answers questions how to make it easy to understand and complete.

5. Knowledge access is an ability to access knowledge quickly, conveniently, and easily at the time needed by considering whether knowledge can be used easily or not and how to gain access to knowledge.

6. Knowledge sharing, especially tacit knowledge that must be transferred by employing various tools, such as documenting, a knowledge base, a Community of practice (CoP), coaching and mentoring system, and Job rotation.

7. Learning is applying knowledge to make decisions and learning by doing, by considering whether the necessary knowledge identified in Step 1 has been used for real situation or not or how can it be improved.

Knowledge management presentes three main components (Ung-Sitthiphunporn & Laparporn, 2016; Wipawin, 2004) following:

1. People are the most important component since people are both source of knowledge or source of knowledge combination and a person who benefit from knowledge. Sharing and transferring knowledge do require people.

2. Information technology is a supported tool for searching, storing, exchanging, and applying knowledge more easily and quickly.

3. Knowledge management system or knowledge management process is a process bringing knowledge from knowledge sources to users in order to

develop and create innovations. Knowledge management process consists of three main steps: creating and acquiring knowledge, sharing knowledge, and using or disseminating knowledge.

Apparently, knowledge management bring about systematic knowledge and innovations. People are crucial factor of knowledge sharing, in which people are source of knowledge and benefit from knowledge. Technology and process help people to gain knowledge when they need. Indeed, information technology can be a substantial tool for searching, storing, sharing, transferring, and applying knowledge easily, conveniently, quickly with accuracy. Presently, three types of information technology used to manage local wisdom are:

1. Technology for creating and storing knowledge systematically, employing information technology aims to preserve old knowledge and create new knowledge in order to seek the best knowledge from outside, to filter and prioritize knowledge, to organize data in a systematic way (standardized, correct, up-to-date) and to interpret various experiences. Then, store systematically by classifying knowledge, establishing a database or a knowledge base or a repository, creating a retrieval system and also creating an easy-to-use knowledge access system. Narathon (2015) explained that data mining tools can be employed to create and acquire knowledge with the goal of acquiring outside knowledge, retaining old knowledge, and creating new knowledge.

2. Technology for sharing, learning, and communicate knowledge in order to access easily and to encourage interaction in sharing and learning, such as video conference, social media (weblog, Youtube, Wikipedia, Facebook). Consequently, there are online Communities of Practice (CoPs), resulting in various forms of learning like self-learning, learn from friends, or learn from experts.

3. Technology for accessing and learning knowledge in order to support and facilitate learning and apply knowledge, for example, electronic books, websites, digital media, video clips, e-learning systems to encourage and facilitate learning, benefit knowledge and create new knowledge.

Research objectives

1. To investigate Lanna Sor wisdom transference.
2. To develop the Lanna Sor wisdom management system

Research methodology

The qualitative research approach was employed to investigate Lanna Sor wisdom transfer process. Content analysis was used to analyze of video recording of in-depth interview and Lanna Sor transfer. The knowledge management process was also integrated in a research process as follows:

1. Acquired necessary knowledge from documents, books, journals, research, articles, primary source, printed and electronic media, and websites related to Lanna Sor wisdom, knowledge management, and Lanna Sor wisdom transfer process.

2. Employed participatory processes along with recording photos and videos to create and acquire Lanna Sor wisdom, participatory methods of acquiring Lanna Sor wisdom were mixed methods to gain the most effective results, including:

2.1 Conversation; visited twelve Kru Sor, who are praised as *Petch Rajabhat-Petch Lanna* of Chiang Mai Rajabhat University, to understand, exchange, and discuss about research significances, objectives, and method.

2.2 Informal in-depth interview and observation about history of Lanna Sor, biography of Kru Sor, Lanna Sor melodies, a process of Lanna Sor performance, and techniques of Lanna Sor.

3. Twelve Kru Sor transferred Lanna Sor by using knowledge management tools; storytelling, lecturing, demonstrating, transferring, and answering question along with recording photos and videos.

4. Analyzed content of video recording using content analysis approach. Contents were categorized in to biography of Kru Sor, history of Lanna Sor, content of Lanna Sor, Sor melodies, Lanna Sor process, techniques for Lanna Sor, knowledge transfer of Lanna Sor.

5. Defined Lanna Sor wisdom management model using information technology.

6. Developed Lanna Sor wisdom management system, consisting of creating a website, an online database, e-books, Kru Sor VDO clips, Lanna Sor lesson VDO clips, as well as Lanna Sor Facebook Fanpage

7. Evaluated effectiveness of Lanna Sor wisdom management system using a focus group with information technology experts.

Research results

According to participatory processes, content analysis of conversations, informal in-depth interviews, and observation to investigate knowledge transfer process of twelve Kru Sor. Research findings are as followed.

Lanna Sor wisdom transfer process

Kru Sor have transferred knowledge by:

1. Storytelling, explaining, answering question about history of Lanna Sor, Lanna Sor melodies, a process of Lanna Sor performance, and techniques for Lanna Sor.

2. Demonstrating

3. Practicing with media, such as recorded Pi Jum melodies

4. Opening a Sor school or Lanna Sor learning center at home, most of Lanna Kru Sor teach Lanna Sor at their home, such as Mae Kru Sirilak Paipun, Mae Kru Pranee, Pakpon, Por Kru Praphan Kaewkhae.

5. Teaching Lanna Sor in organizations and schools, both in Chiang Mai and nearby provinces, such as Por Kru Inta Laokham, Por Kru Winai Chaiya, and Mae Kru Wanpen Manorat.

Lanna Kru Sor concluded steps of transferring knowledge, as following:

1. Teaching learners to know and remember each Sor melody.

2. Starting the rhythm by clapping or using a percussion stick in order to allow learners to know how to put Sor lyrics into the Sor melody. Different melody different where to put lyrics.

3. Put the Sor lyrics into the chosen Sor melody using rhetoric and rhyme.

4. When the lyrics and the melody are in rhythm, Kru Sor let the students listen to the melody from recorded media, such as sound clip or YouTube clip, or perhaps live playing the Sor melody using real instruments.

5. Once the learner's practices, the lyrics may incompatible with the melody, which needs to make adjustments.

6. After that, the learners would Sor to Kru Sor or others, in order to know whether Sor can transfer meaning to the audience, whether the audience have feelings or emotions. If that so, such Sor is success.

Lanna Sor wisdom have transferred through several processes:

1. Transfer from masters or local wisdom, such as Mae Kru Chansom Saithara (National Artist), Por Kru Khampai Nuping (National Artist), and Mae Kru Busorn Tanomboon, Mae Kru Khamnoi Laomeaw, Mae Kru Khampan Ngaosai, Mae Kru Saengei Wiangpapao, Mae Kru Buapud Sudsaengta, Por Kru Kaew Talai. They requested these masters to be a learner and live with masters at home. In the same Sor band, they followed their masters to perform in various events. Thus, they accumulated experiences to be Lanna Jang Sor until becoming experts in Lanna Sor.

2. Transfer from seniors and friends who are Lanna Jang Sor, including the establishment of the Lanna Sor Artists Association. The president of the association is Por Kru Thai Tipanet. There are 317 members from the Chiang Mai Pi Sor Legend Inheritance Association, Nan Folk Artists Association, Chiang Rai Lanna Pi Sor Association, Phayao Sor Club, Lampang Pi Club. The Lanna Sor Artists Association aims to unite all Sor and Pi artists in the northern Thailand and share the culture heritage of Lanna. The purposes of the Lanna Sor Artists Association as follows:

1) To perform community voluntary work, promote, support education, research, revive, protect, preserve, create, and sustain Lanna Sor in a changing society.

2) Cooperate with government agencies, private organizations and institutions both in Thailand and aboard in admitted role development of Lanna Sor artists.

3) Protect members' rights and privileges.

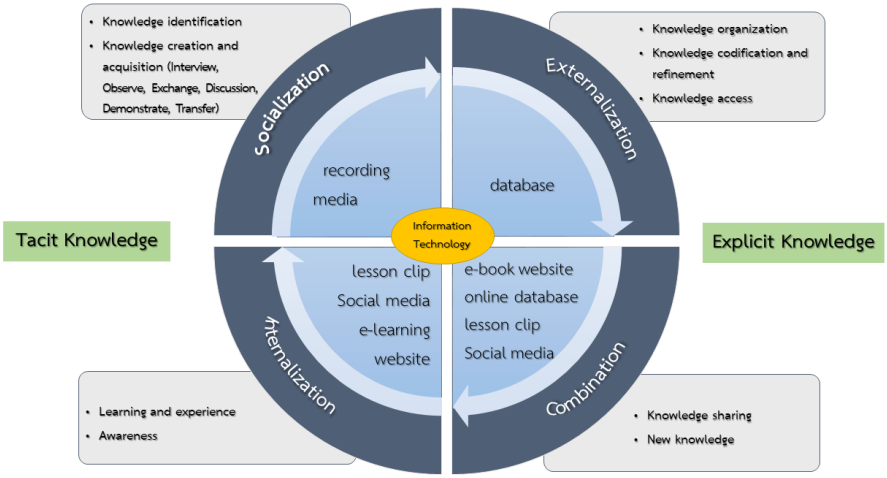
4) Be a center for sharing knowledge, providing consultation, and transferring Lanna Sor to other artists and interested people.

5) Promote marketing plan of Sor performance, leads to the added value of Sor band.

3. Transfer from various media, including Lanna Sor video and Sor lyrics that Sor masters have recorded and created.

Lanna Sor wisdom management system

Lanna Sor wisdom transfer process and the SECI model, continuous knowledge management cycle provided a process of transference of knowledge was suitable for Lanna Sor wisdom, results in creating knowledge and innovations. Lanna Sor wisdom management system for collecting and transferring Lanna Sor into tacit knowledge became Lanna Sor explicit knowledge using information technology is shown in the picture 1.



Picture 1 Lanna Sor wisdom management system

From picture 1, Lanna Sor wisdom knowledge management system is a collection of knowledge in people and documents to be systematically developed by applying information technology. Other people can benefit knowledge by accessing knowledge and practicing. Consequently, such knowledge sustains in a society. The process of Lanna Sor wisdom management system is as follows:

1. Knowledge identification is to identify, create, and acquire Lanna Sor wisdom with mixed several methods together to gain the most effective results. Lanna Kru Sor who are willing to transfer knowledge can tell story, lecture, demonstrate, and answer questions. In addition, observing, practicing, analyzing works, as well as searching for knowledge from various media related to Lanna Sor wisdom like books, journals, articles, websites, and related to research (knowledge collected for disseminating) can be worthy methods to acquire knowledge. In this step, information technology can record knowledge from storytelling, lecturing, demonstrating, and transferring knowledge, including digital motion pictures recording and technology for data collection and recording, such as video camcorder, handy drives, and hard disks.

2. Systematic management by codification, refinement, and management Lanna Sor wisdom accessed and applied conveniently. Information technology that can be used to help for access Lanna Sor wisdom faster and easier is the Lanna Sor wisdom database (a knowledge base/an information repository). The database can provide information in several format: text, images, and motion pictures (VDO Clip, animation), for example, Kru Sor's biography.

3. Sharing, knowledge sharing among individuals through formal and informal processes. This can be one-by-one or in groups (Socialization). Information technology that can convey or transfer Lanna Sor wisdom include electronic books, online lesson clips (digital teaching media), a website (www.petch.cmru.ac.th), and online Lanna Sor wisdom database/knowledge base/repository. Moreover, social media (Facebook fanpage) can be used for sharing knowledge and experiences

as well as answering questions between learners and learners, learners and Sor experts, learners and system developer, and Sor experts and system developer, resulting in online community of learning (CoP) and coaching and mentoring System.

4. Learning is applying Lanna Sor wisdom and then gain advantages of using wisdom. Learning also increase awareness and acknowledge of Lanna Sor wisdom in a society. Information technology used in this step is online digital teaching media (e-books, lesson clips for teaching Lanna Sor) for self-learning.

The effectiveness evaluation of Lanna Sor wisdom management system revealed as in Table 1.

Table 1 Mean and Standard Deviations of effectiveness evaluation

Evaluation	Effectiveness		
	$\bar{X}$	SD	Level
1. Usefulness	4.57	0.53	Highest
2. Conveniently access	4.57	0.53	Highest
3. Easy to use	4.43	0.53	High
4. Information is complete, accurate and reliable	4.43	0.53	High
5. Up to date	4.29	0.49	High
6. Response time of the system	4.14	0.69	High
7. Response to users' need	3.86	0.69	Moderate
8. Information presentation	3.71	0.95	Moderate
Overall	**4.25**	**0.62**	**High**

As shown in Table 1, the Lanna Sor wisdom management system has an overall effectiveness at high level ($\bar{X}$=4.25 SD=0.62). In terms of the usefulness and convenient access, the system has an effectiveness at highest level ($\bar{X}$=4.57 SD=0.53). The system is easy to use and has complete, accurate, and reliable information ($\bar{X}$=4.43 SD=0.53).

Discussion and Conclusion

Discussion

In terms of the process of Lanna Sor wisdom transferred, Kru Sor begins with teaching learners to remember and understand Sor melodies. One of Kru Sor's technique for communicating Sor meaning, making the audience had better understand, and feeling related with Sor, is being able to choose Sor melody consistent with Sor content. This is an accordance with Luepan (2001) and Department of Cultural Promotion (2019) explained that Sor wisdom transfer requires memorizing and patience as much in order to recognize Sor lyrics and melodies. Therefore, Sor learners must have a very good memory. After the learners have memorized Sor melodies and rhyme, Kru Sor would allow them to put the lyrics consistent with Sor melodies. However, the advancement of technology and educational development helps Kru Sor teach much easier. Sor artists have more educational opportunities so most of them are literate person. As can be seen that most of Kru Sor in this research have at least fundamental educated knowledge, which is different from Kru Sor in the past. They can write Sor lyrics for students to read and memorize. While Sor students can learn and memorize faster. In addition, there is a recording of Pi (Northern Thai flute) for Sor learners to practice Lanna Sor with that sound recording. When learners can Sor according to the melodies, Kru Sor would listen to students, which is a vital characteristic of Jang Sor. Department of Cultural Promotion (2019) emphasized that Jang Sor must hard practice in order to gain more experiences and expertise by performing in various Sor events and to reduce excitement on a stage as well as practice resourcefulness because of having to interact with the other immediately. Indeed, Sor lyrics are immediately composed or solved problem in response to situations and events. In accordance with the technique of Kru Sor who has practiced until becoming expert. In addition, the technique of Kru Sor to create Sor more aesthetic, is reading books and striving to learn a lot. Doing so helps with stylistic matters, rhyme, and words usage for communicating content meaning to the audience.

The various patterns of knowledge transfer of Kru Sor: there transferred from masters or local wisdom, seniors, friends by storytelling, explaining, answering questions, demonstrating and then hard practicing, or even opening a school or a Sor learning center at home, and teaching Sor with organizations and schools. This is consist to Seniwong Na Ayudhya (2007), local wisdom teachers, especially the elderly, are those who have learned and have accumulated experience until they have expertise through various methods of learning and practicing succession. Therefore, the pattern of Sor wisdom transfer is practicing-based learning. This in line with Luepan (2001) who explained that Por Kru Sor and Mae Kru Sor (who has a lot of experiences accumulated by age and time, a well-known reputation, with high ability to transfer knowledge) transfer and teach Lanna Sor to the next generation by recruit students. In the past, those who were interested in being Jang Sor may request Kru Sor to be a Sor student. This due to their poor status and needed to have a supplementary career from agriculture, get income to support themselves and their family after the end of the harvest season. If Kru Sor accepted their requests, they would go to live with Kru Sor to learn Sor and do housework or farming as a tuition. When Kru Sor have free time, they would teach their students.

Lanna Sor wisdom invented from an accumulation of knowledge and long experience. Lanna Kru Sor are those who have learned and gained experiences and skills through hard learning process, practice, and various inheritance methods to the present. Consequently, selection of knowledge transferring methods of Lanna Sor wisdom to suit objectives, target groups, and readiness of person who transfer knowledge therefore requires a mixed method to gain the most effective results. For that reason, main knowledge management tool for manage Lanna Sor wisdom is storytelling. The main goal of storytelling is to let Lanna Kru Sor tell and talk their tacit knowledge. Yet, conversation, teaching, demonstrating, answering questions, or interviewing with Lanna Kru Sor were employed. This is in line with

Nilawan and Kritsunthorn (2016), they found that the process of transferring local wisdom should use the hybridization strategy, an integration of 3 type transfer methods and processes together, including verbal teaching, focus on practicing, and answering questions. In fact, Seniwong Na Ayudhaya (2007) and Kaewthep (2008) explained that masters or local wisdom have their own mechanism to continuously develop knowledge, understanding, skills, expanding learning skills, and transfer. However, these processes occur naturally and at an individual level only. Hence, tools to transferring knowledge for knowledge management process are significant.

Hence, the Lanna Sor wisdom management system should be an integration of the old style and the new style of knowledge transfer. In which, learning from experts the most with self-learning through modern media and verbal teaching. By focusing on practical training with a new teaching method that allows students to ask questions that they want to know and be interested in. Beginning with introduction, transfer styles, teaching media, activities, motivation techniques, and evaluation of practice-based learning in order to let learners understand examples and steps from Lanna Sor demonstration and able to do through digital teaching media. Thus, the Lanna Sor wisdom management system requires an online database, website, Facebook Fanpage (social media for interact with each other), self-learning through digital teaching materials (electronic books, online lesson clips) with multimedia information (text, image, sound, and motion picture or animation). Consequently, online Lanna Sor Community of Learning (CoP) is created. This CoP is coaching and mentoring System that not only supports learning but also preserving Lanna Sor wisdom. However, from the focus group of information technology expert about the effective of the Lanna Sor wisdom management system, the system had effectiveness at moderate level in Response to users' need ($\bar{X}$=3.86 SD=0.69) and Information presentation ($\bar{X}$=3.71 SD=0.95). The Lanna Sor wisdom management system should be open to the public to use

and provide feedback in order to know users' need and then improve the system to response to users' need.

Conclusion

Kru Sor' knowledge transferred patterns and processes in varied through storytelling, explaining, answering questions, demonstrating, practicing, trying, and using media like recorded Pi (Northern Thai flute) sound. Lanna Sor transferred from masters, seniors, friends, media and documents as well as hard practice, which is practice-based learning. Lanna Sor wisdom management system consists of four steps as the following: 1) Identification, creation, and acquiring for Lanna Sor wisdom; storytelling, lecturing, demonstrating, and answering questions, observation, practicing, analyzing works, and searching for knowledge from various media, 2) Systematic Lanna Sor wisdom management by codification, refinement, and management Lanna Sor wisdom to be accessed and applied conveniently by creating a database, 3) Sharing Lanna Sor wisdom through online channels (electronic books, digital teaching media, a website, and online database or information repository and Facebook Fanpage, and 4) Learning and practicing Lanna Sor wisdom to increase awareness and experience by self-learning and sharing experiences using Facebook fanpage. These cycle model of Lanna Sor wisdom management encourages sharing and exchanging of new skills as well as learning from one another and creating new Lanna Sor knowledge.

Suggestions

1. There should be a complete development of knowledge management system for all kind of Lanna wisdom

2. There should be a thorough study of the Lanna Sor wisdom in various areas, such as usage of language, rhetoric, and melodies.

3. There should be development of e-learning system like MOOCs or Moodle Lanna Sor course.

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