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“Social Innovation for Sustainable Development in ASEAN Community”

15 January 2014

School of Social Sciences, Chiang Rai Rajabhat University, Thailand

**1**

### Oral Presentation for the International

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2	Mr. Watcharapong Rauncom	The Effects of Education on Helminth Disease to Knowledge, Attitude, and Behavior of Helminthic Infection, Prevention and Control of Village Health Volunteer: Nanglae Sub-district, Muang District, Chiang Rai Province	Kasalong	13:00 – 13:15
3	Mr. Pisit Potjanajaruwit	Promotion Mixed Factor to Influencing International Standard Energy Economy Car Buying Decision of Consumers in Bangkok Metropolis	Kasalong	13:15 – 13:30
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12	Mr. Deng THONGSING	The Causal Factors Influencing Mathematics Learning Skills of LuangNamtha Primary School Teacher Students	Kasalong	15:30 – 15:45
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## Local Wisdom Conservation through Interpretation

Umaporn Muneenam<sup>1\*</sup> and Pongbaworn Suwannattachote<sup>2</sup>

### Abstract

This article presents the research results from the gathering, developing and testing of local wisdom interpretations on Palm Shell Charcoal of the Conservative Tourism Association at the Tha Hin Sub-district, Sathing Phra District, Songkhla Province. First, the 19 members of the Conservative Tourism Association mentioned on their poor management and concerned on the lack of skills and personnel for tourist communication on environmental preservation during the focus group. Second, three local wise people volunteered for in-depth interviews, observation and VDO tape-recording to conserve, record and transfer this local knowledge to tourists. Third, this developed VDO-interpretation was approved by three experts, followed by the testing of 15 qualified questions with 48 voluntary tourists. Finally, it was found that the tourist volunteers had a significantly higher knowledge after watching the VDO interpretation at the 0.05 level; in addition, they had a high satisfaction for this interpretation ( $X = 4.18$ )

**Keywords :** Knowledge Result, Conservation, Local Wisdom, Interpretation, Palm Shell Charcoal

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## **Introduction**

Interpretation is an approach to communication (Ham, 1992) available for the visitors in historical and natural resource areas, for example, in museums, indoor recreational areas, outdoor recreational areas, parks and camps (Knudson, Cable, & Beck, 1999). Unlike teaching in the classroom that provides only factual information, interpretation communicates with audiences to both better understand and enjoy the places through the use of original objects, by first-hand experiences and by illustrative media. Interpretation is truly meaningful for cultural conservation, because it helps the audience to gain a sense of place and to perceive the significance of the cultural environment. A person who interprets or communicates in this way is called an interpreter (Ham, 1992; Knudson, et al., 1999). In general, there are two major types of interpretation, personal interpretation and non-personal interpretation. Personal interpretations are guided talks, live performances, and information centres. On the other hand, non-personal interpretations are mass media, print media, electronic media, self-guiding features, exhibits and museums (Ham, 1992; Knudson, et al., 1999).

The importance of interpretation relates to sustainable tourism concerning the 'knowledge-based platform' (Weaver, 2001). In addition, many communities based on tourism in Thailand hope that the high quality of this knowledge-based tourism pattern will improve the local welfare, and that tourists will respect their ways of life and protect the local natural and cultural resources. However, many research results have found that one of many limitations for the communities that self-manage tourism or community-based tourism is interpretation. Examples are the Ban Pong community, Chiang Mai; A Kha (hill tribe) cultural tourism; the Ban Mae Kam Pong, Chiang Mai (Sarobol, Wongthubthim, Songpornwanitch, & Wongkham, 2003); and the Palm-Paddy-Sea cultural life-style tourism, Songkhla (Muneenam & Srichoo, 2009). This might be because the best local interpreters are usually the leaders in the communities and are not available for tourism interpretation all the time. In addition, the local people, members of the community-based tourism, do not want to 'show up' their local leaders, because community-based tourism is not the main priority in their activities income. Therefore, developing a personal interpretation and/or non-personal interpretation could be the solution for this interpretation limitation.

This situation is similar to the community-based tourism in the Tha Hin Sub-district, Sathing Phra District, Songkhla Province, where the local people have formed a group for local tourism, since 1997, about the local life style on the Palm-Paddy-Sea. They are very proud of this, because it is a very distinctive way of life, showing how the various local people live throughout the year. They worked with the local the Tourism Authority of Thailand (TAT) and the local tourism agencies on marketing, and train the local youths in interpretation. However, interpreting the local information for the tourists seems unfavorable to the youths (Muneenam & Srichoo, 2009). Consequently, the development of a local wisdom interpretation through the non-personal interpretation media would be the solution. In this case, the VDO interpretation on the Palm Shell Charcoal — the simple life style of Tha Hin community, Sathing Phra District, Songkhla Province — was developed. Finally, the learning result of this interpretation is presented.

## Objectives

This research paper will present the development of a local wisdom interpretation through the non-personal interpretation media and present the learning results of this interpretation in a case study on Palm Shell Charcoal; the simple life style of the Ta Hin community, Sathing Phra District, Songkhla Province.

## Research Methodology

There were participatory action researches (PAR) and experimental researches of the non-personal interpretations conducted in this research.

## Population and Samples



**Figure 1** Study area in this case at Tha Hin Sub-district, Sathing Phra District, Songkhla Province

The population in this research study can be divided into two groups. First, the population community-based tourism association located in the Tha Hin Sub-district, Sathing Phra District, Songkhla Province, and second, the population of the tourists who visited the community-based tourism in the Tha Hin Sub-district, Sathing Phra District, Songkhla Province. Generally, there were about 70 members in the Palm-Paddy-Sea life-style tourism in 2009 (Muneenam & Srichoo, 2009); however, this study focused on only those participants related to the Palm Shell Charcoal so that purposive sampling was used to selected the first group of samples. Finally, 19 samples were voluntarily involved and participated in the first stage of the study; after



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that, the three local wise people conversant with the Palm Shell Charcoal were interviewed and a VDO was tape-recorded to prepare for the VDO interpretation (see Figure 1). While there are no records on how many tourists visited this community-based tourism, this research is designed as the pilot study to test the VDO interpretation and invited the voluntary tourists to participate in this activity. Finally, 48 tourist samples of purposive sampling were voluntarily involved in being tested for knowledge results and satisfaction after watching the VDO interpretation.

### **Research Tools**

There were five research tools used in this study. First, questions asked in the first focus group about interpretation needed assessments. Second, short questionnaires asked the participants in the first focus group to determine the participants' background, such as, name and surname, address, education, career and need for tourism interpretation improvements. Third, the VDO recorded together with voice records, camera and unstructured questions questioned Palm Shell Charcoal with three voluntary participants. Fourth was a test for testing the knowledge result, and fifth, the satisfactory form of the VDO interpretation was analyzed.

### **Data Collection**

These can be divided into three steps for the data collection. First, the focus group — participatory action research (PAR) — of 19 purposive voluntary participants was conducted to collect tourism interpretations requiring assessment. In the second stage, the local wisdom concerning Palm Shell Charcoal, this case study, was observed and interviewed in-depth with the local wise people; moreover, the documentary research was reviewed, if the data gained from the observation and interviews were insufficient. Last, the VDO interpretation on the Palm Shell Charcoal was developed, and then the knowledge results and satisfaction of the 48 voluntary tourist samples were assessed.

### **Data Analysis**

Data from focus group, observation, and in-depth interviews were analyzed with content analysis. The tests were analyzed with the T-Test and were qualified with three methods, the internal consistency (Srisopa, 1982), discrimination and difficulty (Ketsingh, 1987). In addition, data from the questionnaires and satisfaction forms were analyzed with SPSS version 16, and presented as a percentage in addition to the comparison results.

**Results and Discussion**

1) *Needs Assessment*

**Table 1** Background information of Conservative Tourism Group (n = 19)

Gender	Frequencies	Percentage	Valid Percent	Cumulative
Female	16	84.2	84.2	84.2
Male	3	15.8	15.85	100.0
Total	19	100.0	100.0	
Age (Year)				
30–39	1	5.3	6.2	6.2
40–49	2	10.5	12.5	18.8
50–59	3	15.8	18.8	37.5
60–69	8	42.1	50.0	87.5
70–79	1	5.3	6.2	93.8
Over 80	1	5.3	6.2	100.0
Total	16	15.8	100.0	
Not Answer	3	100.0		
Education				
Primary Level	10	52.6	66.7	66.7
Secondary Level	2	10.5	13.3	80.0
High School	2	10.5	13.3	93.3
Bachelor Degree	1	5.3	6.7	100.0
Total	15	78.9	100.0	
Not Answer	4	21.1		
Career				
Government Staff	1	5.3	5.9	5.9
Local Politician	1	5.3	5.9	11.8
Labor	2	10.5	11.8	23.5
Farmer	7	36.8	41.2	64.7
Palm Product	3	15.8	17.6	82.4
Others	3	15.8	17.6	100.0
Total	3	89.5	100.0	
Not Answer	17	10.5		

The first focus group was conducted to gather the information about the local requirements for the tourism interpretative development from the 19 Tha Hin community-based tourism members; the result found that the local members needed to improve more widely their tourism interpretation for the tourists. However,

most of the interpreters for the tourists in their community were only a few natural local leaders, while the rest of the members were shy to speak in front of the public — but they were willing to interpret as a live show, such as selling the local products. However, because of these weaknesses, many times the tourism activities occurred only when the local leaders who interpreted were available. This also could be because the local community-based members were less educated to be confident when speaking in the front of tourists (see Table 1). In addition, the youth groups in the community were not interested in participating in these tourism activities and were not available, because they had to go to school.

## 2) *Palm Shell Charcoal Interpretative Development*

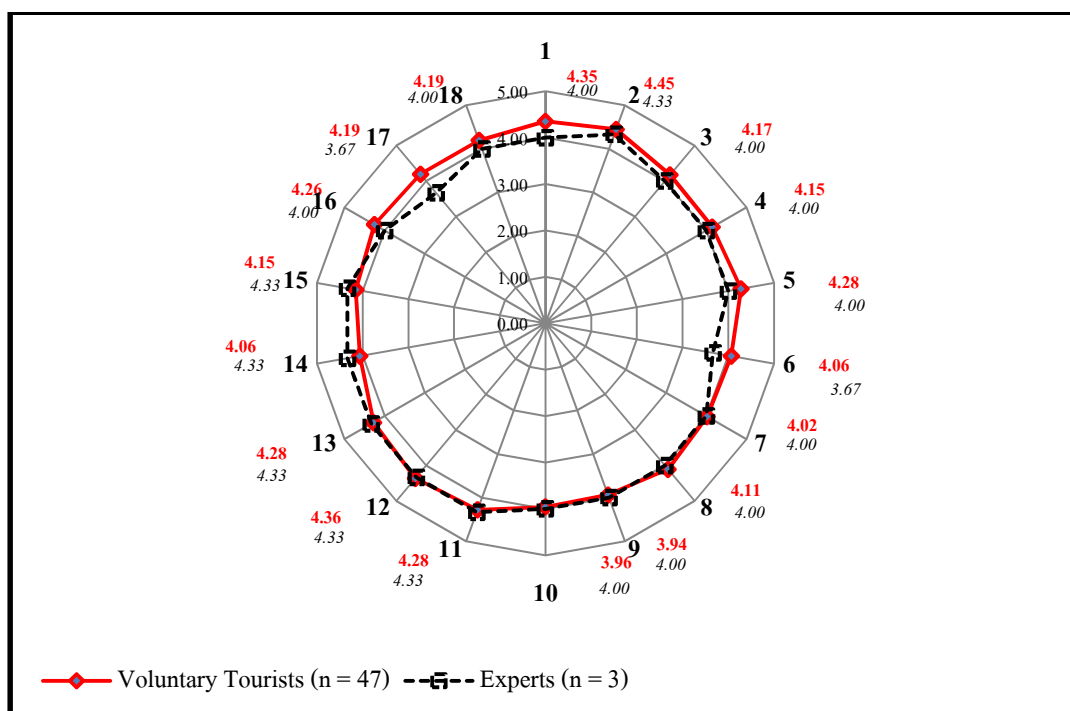
After the local needs were assessed, three local wise people who knew about Palm Shell Charcoal volunteered to participate in interviews together with the VDO tape-recordings. After that, the VDO tape-script was developed from data obtained from the in-depth interviews together with the observation; moreover, documentary research was reviewed to fulfill the interpretative information in the VDO tape-script. The palm-shell Charcoal was narrated by two professional speakers and finally produced into a VDO interpretation lasting about 12 minutes, which can be summarised as following interpretative example.

*"Palm Shell Charcoal" is the local knowledge of the Tha Hin Conservative Tourism Association (Palm-Paddy-Sea Life-Style), Tha Hin Sub-district, Sathing Phra District, Songkhla Province. The Palm tree, separated male and female trees, originated from the hot climate topography area in Africa, and reached Asia via South India, Sri Langka, Mynmar, Cambodia, Malaysia, Indonesia and Thailand from ocean trade. Consequently, there are palm trees near the coastal cities in the Petchaburi and Songkhla Provinces, in addition to cities near waterways and other cities in Thailand. However, there is no proof of when the palm tree was first planted in Thailand. But there is the stamp of people climbing palm trees from the Tawa Ravadeee Period during 11–16<sup>th</sup> centuries, in addition to the proof of King Ram Khamhaeng 1's Inscription, Side 3, showing that King Ram Khamhaeng ordered the growth of palm trees and arranged the rock bench in the middle of the palm gardens to teach people during worship days and on normal days. The palm shell charcoal is the local product of palm farmers that has long been in use. Palm charcoal comes from the palm shell or the palm fruit that cannot grow. To make the charcoal, cut the hard palm shell or using the palm tusk, dry them, and then burn them. In the Tha Hin Sub-district, Sathing Phra District, Songkhla Province, there are six steps in palm shell Charcoal. (1) Collect the palm fruit from the female palm tree. (2) Dry the palm fruit. This method will release palm fruit moisture. (3) Now burn the dried fruit. Usually, the community does not burn the palm fruit after August, because it starts raining, a burden for burning. (4) When the palm shell is burnt, bring the palm shell out and leave it to cool. (5) Store the palm shell charcoal. (6) When the charcoal has cooled down, polishing the charcoal with grate, or smooth the charcoal with the hands. This method is the way to select a beautiful piece of charcoal, put it into a plastic bag, then sell it. The good points of palm shell charcoal are its strength, it produces a high quality heat, slowly burns, does not smoke and there is no ash. It can replace the firewood from the forest. Nowadays, palm shell charcoal can sell in the community to burn and cook sweet desserts, it*

can create steam at a high temperature or grill food. The weak points of this palm shell charcoal are that it produces air pollution for people who are allergic and it dirties the clothes. Consequently, in high density communities, the local people will decline burning palm shell charcoal, or burn it in the more spacious area in a rice field or near the lake to reduce the air pollution impacts. It is clear that the local knowledge of palm shell charcoal in the Tha Hin Sub-district, Sathing Phra District, Songkhla Province is the way to produce local energy from farming residues, which is worthwhile for the Palm-Paddy-Sea life style.

### 3) Interpretative Satisfaction

After the VDO interpretative production had been finished, three experts ( $X = 4.07$ ) on the tourism industry, Palm Shell Charcoal knowledge, and VDO production watched the VDO to rank the satisfaction of this VDO interpretative production over the 18 issues (see Figure 2). Moreover, this interpretative satisfaction form was also completed by the 48 voluntary tourists ( $X = 4.18$ ), as shown the results below.



**Figure 2** Comparative results between voluntary tourists (Dark line) and experts' satisfaction (Dashed line)

Figure 2 shows that most of the interpretative satisfaction (12 from 18 issues) from the voluntary tourists ( $n = 47$ ; one respondent did not answer) was higher than the experts ( $n = 3$ ). These were the satisfaction about, (1) clear interpretation, (2) short and understandable, (3) interesting issue, (4) suitability of time, (5) useful information for local energy management, (6) picture colour, (7) clear picture, (8) continuation of pictures, (12) voice level, (16) relationship between picture and narration, (17) relationship between picture and content and, (18) picture motion. Except for the satisfactions about, (9) font colour, (10) font size, (11) clarity

of voice, (13) suitability of voice, (14) suitability of music and, (15), the overall presentation, the experts’ satisfactions was given a higher value than the voluntary tourists’.

4) *Tests Quality and Tests Results*

After the VDO interpretative production was reviewed by the three experts, this VDO interpretation was then presented to the 48 voluntary tourists. To prove the production of this VDO interpretation about the Palm Shell Charcoal, 20 questions with four multiple choices were designed and qualified with the following three investigations, (1) internal consistency of the questions, (2) discrimination of the questions (r) and, (3) difficulty of the questions (p). The results of these qualifying questions found that the Internal Consistency was 0.483. This was in accordance with Srisopa (1982), who stated that the internal consistency was valued from 0.20 to 1.00 depending on the number of questions, and about 20 questions were valued at 0.50 for the Internal Consistency. This means it will positively increase when there are more numbers for the questions and vice versa. Moreover, the results of the discrimination (r) of the 20 questions found that there were 16 suitable questions selected from the questions that had values more than 0.20 points. In addition, the results of the difficulty (p) of the 20 questions found that there were 17 suitable questions selected from the questions that had values between 0.20 to 0.80 points (see Figure 3).

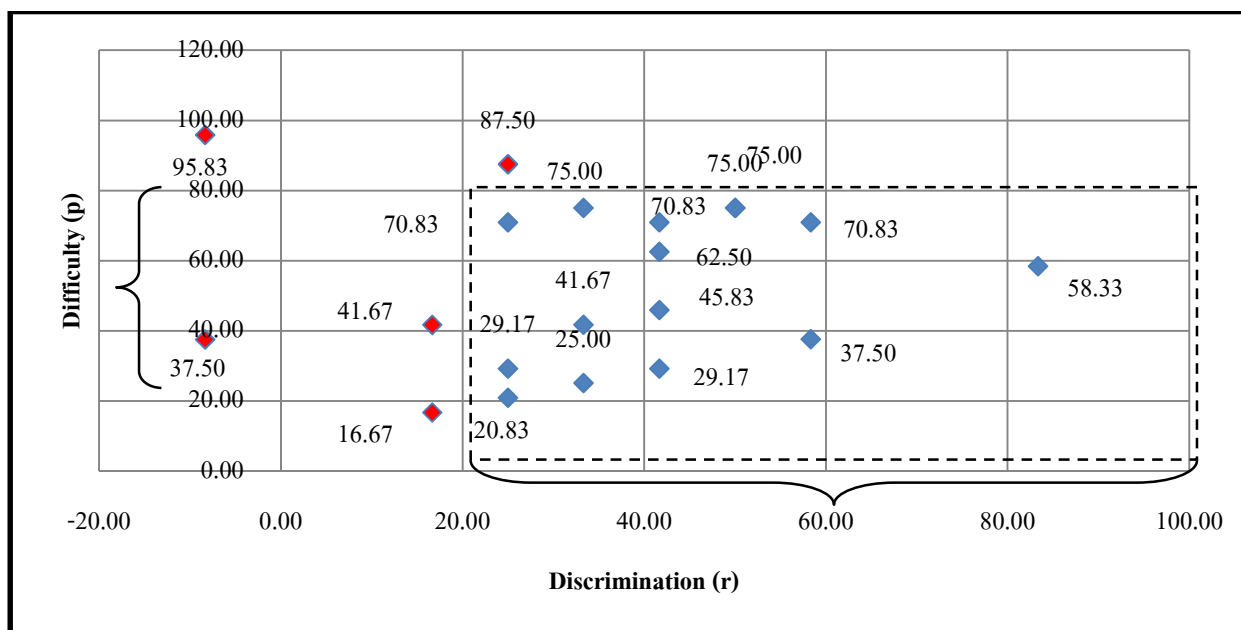


Figure 3 Fifteen suitable questions (inside the dashed box) qualified by the discrimination (r) and difficulty (p).

After that, the remaining questions, about 15 questions, were used with 48 voluntary tourists. Table two shows that the numbers of correct answer from voluntary tourists at the Post-test was higher than those of at the Pre-test, except question number 11 which was lower of the numbers of correct answer from voluntary tourists at Post-test than those of at the Pre-test. This could be because of the unclear explanation of the multiple choices which has to be improved for next time. After that the average number of correct answer from each

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voluntary tourist was compared before and after, and analyzed with T-Test. The results found that this VDO interpretation was valuable for providing knowledge to tourists, as proven by the 15 pre-tests, and the post-tests found that knowledge was significantly increased at the 0.05 level (see Table 3).

**Table 2** Fifteen questions asked in the test.

Rearrange Order	No.	Questions	No. of correct answer of voluntary tourists (N = 48)	
			Pre-Test	Post-test
1	2	The Palm tree is mentioned in which part of King Ram Khamhaeng 1's Inscription?	15	44
2	4	Which is the best description of the Palm Shell Charcoal production in order?	32	46
3	5	Which is the best condition of palm shells collected to produce charcoal?	31	45
4	6	Which kind of palm shell can be burnt for charcoal production?	26	48
5	9	Which one is the best describe of palm shell charcoal production instruments?	29	47
6	10	Which method produces palm shell charcoal?	18	47
7	12	Which one best describes the positive impact of palm shell charcoal production?	36	45
8	13	' <i>Peh</i> ' means which part of Palm Tree?	6	46
9	14	Why is the husk important when making palm shell charcoal?	26	47
10	15	'Ripe charcoal' means?	37	42
11	16	' <i>Nieng</i> ' means?	18	11
12	17	Which part is used to produce palm charcoal?	15	42
13	18	How is the heat reduced after the palm shell charcoal has been burnt?	18	44
14	19	Why must the palm shell charcoal be smoothed after it has cooled down?	31	43
15	20	Which one best describes the good point of Palm Shell Charcoal?	40	48

**Table 3** Knowledge results between pre-test and post-test

Number of Voluntary tourists (N)		Average ( $\bar{X}$ )	S.D.	t
Pre-test	48	7.88	2.598	-15.208
Post-test	48	13.44	1.201	

### Conclusion

This local wisdom about Palm Shell Charcoal was preserved from one generation to another through non-personal interpretations, in this case, the VDO interpretation. The knowledge has been transferred and proven by qualified questions showing that the knowledge of the 48 voluntary tourists was increased significantly at the 0.05 level after watching the VDO interpretation. Moreover, the satisfactions of both the experts ( $\bar{X} = 4.07$ ) and the voluntary tourists ( $\bar{X} = 4.18$ ) were at a high average.

### Recommendations

The VDO production from this Palm Shell Charcoal research can become the database for storytelling for children about how to use the rural local people’s knowledge to live well. The VDO interpretation can be further translated into other languages for international tourists and become the qualified questions for further voluntary re-testing with international tourists.

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