Participatory Learning to Create Consciousness for Conservation and Utilization from 'Namwa Mali-Ong' Banana in Bangkrathum District, Phitsanulok

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Abstract

The objective of this research is to introduce participatory learning for shaping consciousness of the conservation and utilization of *Namwa Mali-ong* banana, a case study of Bang Krathum District, Phitsanulok Province. This study utilizes the participatory action research methodology through learning activities. The research instruments were learning activities and evaluation tools, including interviews and observation guides. Data collection employed preparation, activity planning, evaluation, and reflection. The respondents consisted of student volunteers, lecturers in the community, researchers and their research assistants. The content analysis was employed to analyze the data.

The results of the study revealed that participatory learning to create consciousness of conservation and utilization of *Namwa Mali-ong* banana consisted of five processes: 1) situational awareness; 2) exchanges of knowledge and experiences, found in receiving phenomena level as attention to listening, and in responses to phenomena level as enthusiasm and willing to response; 3) design of activities, found in receiving phenomena level as attention to listen and attentive selection, and in responses to phenomena level as willing to response and satisfaction; 4) actual practices, found in receiving phenomena level as attention to listen, in responses to phenomana level as enthusiasm and satisfied in listening, and in valuing level as admiring, valuing, welcoming, and self-presenting; and 5) learning reflection, found in receiving phenomana level as attention to listen and attentive selection, in responses to phenomana level as being willing to response, and in valuing level as appreciating, initiating, welcoming, and self-presenting.

Keywords: Participatory Learning, Create Consciousness, Conservation, Utilization, Namwa Mali-Ong Banana

Introduction

A *Namwa* banana is a beneficial fruit and important to local people. As its well-known qualifies, *Namwa* banana helps preventing from anemia, reducing blood pressure, releaving constipation, maintaining blood sugar, preventing from morning sickness, controlling nervious system, reducing body temperature, reducing the need of nicotin of those who desire to quit smoking, and help regular heartbeats. Moreover, applying its inner skin can reduce turgescence from a mosquito's bite (Silayoi, 2002, pp. 272-273). Ripened *Namwa* banana eating with honey is also the recipe of elixir (Komasathid, 2009, p. 181). Banana as a fruit is not only a kind of food and medicine, other parts of a banana tree including leaves, flowers, stalks, and trees, are also used in rituals and traditions; for example, wedding ceremony, fenural, groundbreaking ceremony, regional ceremonies, Kathin, end of Buddish lent, Thung Khankhaw ceremony, child compensation, and other warships. In addition, *Namwa* banana is also an economic plant for people in some areas such as sun-dried bana and butter-coated banana in Bang Krathum Sub-district, Phitsanulok Province. Utilizations of bananas reflect the local wisdom in several aspects, e.g. cooking, food conservation, sawing and invention, treatment, and herb, traditions and warships, etc. Therefore, *Namwa* banana is considered a plant containing local wisdom that is worth being preserved.

Therefore, transferring local wisdom from a generation to another one is the significant issue; however, this process has been more difficult and limited. One of the methods of local wisdom conservation is transferring it from one generation to the other one. In the past, this process was automatic through lifestyle and other

community traditions such as banana craving for caremonies, wax-castle festival, ceremony of welcome, etc., which were held at the village hall or a host's house. Those activities caused the unification of those who were an expert in any fields, who has been later called a "local wisdom elite", including cooking, welcome ceremonial elements, food offerings for spirits, cravings, herbs, etc. The unification of those activities results in learning and technique transferring of the people automatically which is called "informal learning". However, laboring-age people have moved for the cities nowadays causing irregular knowledge transferring from a generation to another one (eldery, labor, and youth), as obviously seen from people buying insteading of doing, or using artificial instead of natural things. In addition, the new generations who attend formal education have faced some limitations in learning local culture. As suggested by Ngamwittayaphong (2006), formal education is the competitive education in which learners go to the employment system afterwards. It did not support human relation encouragement. People do not care for the nature, lack of common sense, are not interested in learning local wisdom and efficiency, and do not know parents' career, so it is resulted in community dissimilarities (Nakornthap, 2008). As mentioned earlier, it can be concluded that knowledge transferr to the new generations is limited in transferrers, methods, and transferees. Therefore, participatory learning is important due to the fact that learners will be more participating in learning activities, sharing experiences, having interactions among leaners, and reflecting and exchanging thoughts. Therefore, they will know the others' different thoughts and feelings and learn to accept them. According to the analysis and synthesis of what the learners have learned, they can create their own knowledge, apply into situations and become their own pathway, and develop their knowledge, attitude, skill, and behavior.

Thus, this issue is challenging for this study. The researcher believes "participatory perhaps helps creating the youths' consciousness in conservation and unilization of *Namwa* banana". According to the literature review, it reveals that the participatory principles have been applied into consciousness creating activities; for example, education activities, e.g. A Project of Education Encouragement on energy and environment conservation of the youths by Electricity Generating Public Company Limited (EGCO Group, n.d.); and the academic work by Phookrisana (2012) of holding a learning activity to create consciousness of local natural conservation: case study of a sea national park. Therefore, the researcher applies the participatory principles into learning management in this study, which its details will be described in the conceptual framework section. However, the following question is "how to know whether the learners have created consciousness of *Namwa* banana conservation and utilization." According to the principle of learning evaluation called "Bloom's Taxinomy" on the topic of consciousness creation is correlated to affective domain (Bloom, 1956), which will be explained in the next section.

According to the information as described earlier, the research question is "how to manage participatory learning to create consciousness in *Namwa* banana conservation and utilization". In this study, the research picks *Namwa Mali-Ong* banana because of its small size, sticky and soft texture, very sweet taste, and individual fragrance (Komasathid, 2009, p. 8). This type of banana is well grown in a particular geography area such as Bang Krathum district, Phitsanulok Province. Therefore, this area is full of Bang Krathum people's local wisdom. Department of Intellectual Property also registers this kind of banana as the Bang Krathunm District's geographical indicator. On the other hand, learners in the area are not interested in learning about banana processing which is the local wisdom, nor they know the area's efficiency in producing *Namwa* Mali-Ong banana (Limsiriwong, 2018, p. 149). Especially, students in primary schools of Bang Krathum District still

need to learn, perceive, and have consciousness of *Namwa Mali-Ong* banana conservation and utilization. Therefore, the research focuses on the primary schools in Bang Krathum District, Phitsanulok Province, as the research area of this study.

Purpose of the Study

The purpose of this study is to carry participatory learning to create consciousness in *Namwa* Mali-Ong conservation and utilization: a case study Bang Krathum District, Phitsanulok Province.

Conceptual Framework

Participatory learning focuses on the learner with the aim of developing knowledge, attitude, skill and learner's behavior. The key principles are the learning activities that encourage new knowledge, actual practice, and interaction between learners and teachers. The principles consist of four elements: **1) Experience**, the stimulation of learners to exchange their prior skills with teachers, media, and group activities; **2) Reflection and Discussion**, the context identification for the learners to analyze and criticize in order to perceive the different thoughs among them, which will widen out learning and turn into more appropriate resolution; **3) Concept**, teaching learners through analyzing and synthesizing the results from Reflections and Discussion, so that they can create their own new knowledge; and **4) Experimentation/Application**, the application of the results from Concept into any situations until it becomes their own pathway (Department of Mental Heath, Ministry of Public Health, 2001 p. 14).

Affective Domain learning evaluation is the evaluation of a learner's feeling and and mind, e.g. value, enthusiasm, motivation, and attitude. This is a five-scale evaluation consisting of 1) receiving phenomena, i.e. awareness, attention to listen, attentive selection, etc.; 2) response to phenomena, i.e. a learner's enthusiasm on both regular and particular leaning activities, learning outcome and willing to response, satisfaction or motivation to response, etc.; 3) valuing, considered as internalization, i.e. admiration, valuing and affection, initiation, invitation, presentation, etc.; 4) organization, a management of priority by comparing and contrasting values, being able to manage it, and creating particular valuing system; and 5) internalizes value, a valuing system that controls a person, which becomes a person's consistant and predictable behavors (Bloom, 1956).

This study applies both concepts into participatory learning to create consciousness in conservation and utilization of *Namwa* Mali-Ong banana. The first concept supports learning process design and management; meanwhile, the second one supports learning evaluation.

Research Methodology

The study applies Participatory Action Research (RAR). The area has been specity to be Wat Thamakham School because the students were willing to attend learning activities, as well as the researcher is close to and trusted by the local people. In addition, the area has been selected because of its convenient transportation, safety, fast cooperation, and easiness to hold a platform session. The study peocesses are described as follows.

1. Target Group: including the persons who are related to learning management, consisting of three groups as follows.

1.1 A group of 39 students, Primary 5-6, from Wat Thamakham School, Phai Lom Sub-district, Bang Krathum District, Phitsanulok Province: Piaget (1965) suggests that children, above 11 years old until maturity ages, are the golden period for learning development. They can think of reasons for any situations, so they should create consciousness and other information perception.

1.2 A group of four community speakers were one professional of food container by banana leaves, one professional of banana processing, one professional of increasing banana sprouts by using the original tree's rhizomes, and one professional of planting *Namwa Mali-ong* banana.

1.3 A group of 19 researchers and research assistants: The research assistants were the students who have been trained with the researchers before conducting the research study.

2. Research Instruments include two main parts as follows.

2.1 Learning activities were acquired from the adaptation of Participatory Learning (PL) conceptual idea: 1) experience, 2) reflection and discussion, 3) concept, and 4) experimentation/application. The learning activities consist of seven activities. The first four activities aimed to learn about the banefits of *Namwa Mali-ong* banana by paring banana with disease treatment activity, answering the questions about the benefits of each part of a banana tree, demonstration of making food container from banana leaves, and demonstration of making processed banana. The other three activities focused on learning how to preserve *Namwa Mali-ong* banana: demonstration of increasing banana sprouts by using the original tree's rhizomes, lecture of planting *Namwa Mali-ong* banana, and planting *Namwa Mali-ong* banana.

2.2 Learning evaluation tools included question and observation guidelines. The concepts of questions and observations were adapted from affective domain evaluation, such as the evaluation of awareness, attention to listen, learner's enthusiasm, and learning's willing respons.

3. Methodology and Data Collection

3.1 Preparation: Planning and meeting researchers, research assistants, and students from Wat Thamakham in order to explain the objectives of the study.

At this stage, the target group was explained on the roles of the researchers, research assistants, and students in the study, the area selection for the study, the expanses of resources, materials, and tools, and the limitations of the study.

The students were stimulated to share their experiences concerning *Namwa Mali-ong* banana conservation and utilization. The conservation and utilization were identified into issues so that the students could analyze and criticize for the wider learning. Therefore, during the stage session, it was concluded that there were four types of learning activities about *Namwa Mali-ong* banana: 1) consumption, paring banana with disease treatment activity; 2) utilization, answering the questions about the benefits of each part of a banana tree activity; 3) relationship between bananas and Thai lifestyles, making food container by banana leaves activity; and 4) banana processing, demonstration of banana processing activity. The other two types of preserving activities: 1) propagation of *Namwa* bananas, demonstration of increasing banana sprouts by using the original tree's rhizomes activity; and 2) planting, lecture of and planting *Namwa Mali-ong* banana activities.

3.2 Seven Activities Operations: The activities included 1) paring banana with disease treatment activity; 2) answering the questions about the benefits of each part of a banana tree; 3) demonstration of making

food container by banana leaves; 4) demonstration of making processed banana; 5) demonstration of increasing banana sprouts by using the original tree's rhizomes; 6) lecture of planting *Namwa Mali-ong* banana; and 7) planting *Namwa Mali-ong* banana.

For the activities among the research assistants, students and the community speaker, students have been categorized into six groups: six persons for three groups and seven persons for three groups, 39 students in total. Seven groups participated seven activity bases. Each activity base was hosted by the research assistants. The activities were held at school and the community area so that students could practice in the actual situations.

3.3 Evaluation: This stage aimed to evaluate whether students had created consciousness of conservation and utilization of *Namwa Mali-ong* banana. The affective domain evaluation was employed.

3.4 Reflection: The students participated the activity of reflecting problems with the researchers, research assistants, and the community speakers. The reflection was purposed to find the solutions and application to future activities.

4. Data Analysis: The data analysis employed "analytic induction", one of the content analysis method, to arrange the data from records, answers, and observations, by using affective domain evaluation framework, and then to summarize. The affective domain evaluation framework was such as awareness, attention to listen, learners' enthusiastic, willingness to response, motivation to interact, admiration, and affection. Finally, the results of the study were presented by employing analytical description.

Results

Participatory learning to create consciousness and utilization of *Namwa Mali-ong* banana consists of five processes: 1) situational awareness; 2) exchanges of knowledge and experiences; 3) design of activities; 4) actual practices; and 5) reflections. The researchers and students designed and managed learning activities by employing the concepts of participatory learning. Each process stimulated the studebts to be conscious in many ways and different levels as explained below.

1. Situational Awareness: The purpose of this process was to manifest the students to recognize the relationship between *Namwa Mali-ong* banana and the community in each dimension. The researchers introduced the situations of *Namwa Mali-ong* banana through a video presentation, share and learn with the students, talk with the students to stimulate them, ask them to think, analyze, and connect the roles of the banana with the community in the dimensions of economiy, society, and culture, and finally, summarize the information. The students then introduced their knowledge and understanding of the relationship by writing a mind map. This process takes about 50 minutes.

It was found that the students showed their created awareness of preserving and utilizing the banana in many ways, extended into at least two levels: 1) Receiving Phenomena and 2) Response to Phenomena. For **Receiving Phenomena level**, the students obviously showed their intention and willing to learn during the observation when they were concentrated on the video presentation without talking. When a speaker asked a question, the students also brainstormed to find an answer and explain it. Moreover, when a speaker gave an example of some phenomenon that the students had faced by themselves, they could give an example of a situation. Those results also reflected on the higher level of **created consciousness**, enthusiasm to response to the activities. While attending the stage activity and doing a mind map, the students asked questions, which showed that they were attentive and enthusiastic. Finally, analysis of the mind map revealed the students' **willing to**

response and enthusiasm, which could be observed from works as being submitted on time, conveying a meaning, and being beautiful.

2. Exchanges of Knowledge and Experiences: The purpose of this process was to stimulate the students to share their experience of preserving and utilizing the banana with the researchers, research assistants, and their fellow students, through the stage activities and making a mind map. The researchers took a role of a facilitators and stumilated the students by questioning them about their experience concerning *Namwa Mali-ong* banana, for example, "please tell me your experience about utilizing *Namwa Mali-ong* banana". The students quickly responded to the question, for example, "Make Banana in coconut milk", "make *Krathong* from banana leaves". The other students were concentrated with their fellow friends' responses so that they received the others' experiences. The process of sharing experiences after the process of questioning and answering encouraged the students to know more about utilizing *Namwa Mali-ong* banana. A speaker then asked the students to share their experiences of comsuming *Namwa Mali-ong* banana, relationship among banana and Thai people, processing banana, breeding banana, and planting banana, so that the students could share their experiences in each aspect. In this process, the activity took about 50 minutes.

According to the analysis of the students' results, the students revealed their created awareness of preserving and utilizing the banana in many ways, extended into at least two levels: 1) Receiving Phenomena and 2) Response to Phenomena. For **Receiving Phenomena level**, the students were concentrated with their fellow friends' responses, and the lecture about benefits of *Namwa Mali-ong* banana. Moreover, they focused on the summarization of benefits and conservations in each way, as obviously observed from their eyes looking on the mind map; it conveyed the student's attention and willing. It was also obvious that most of the students tried to explain their experiences to the speaker. Those expressions reflected the created consciousness, **willing to response**, to the activity.

3. Activity Design about Preserving and Utilizing: This process aimed to encourage the students to understand the utilization of *Namwa Mali-ong* banana. The stage to share and learn experiences was carried out in order to design the activities of conservation and utilization through everyone's ideas. It was important in this process to clarify the significances of the activities. The researchers took a role as facilitators by writing a mind map in order to let the students see the overall activities and participate in the priority arrangement in each aspect in order to select the appropriate activities. On the stage, the facilotators created a friendly environment to make the student relaxed and explained about the limitations of time and budget.

The facilitator then summarized together with the students; and it reavealed that the students want to attend the activities concerning *Namwa Mali-ong* banana in four aspects below:

1) Consumption: the students wanted to play a game of paring the banana with disease treatments.

2) Utilization: the students wanted to play a game of answering questions about the benefits of each part of a banana tree.

3) Relationship between a banana and Thai lifestyle: the students wanted to attend an activity of demonstration of making food container from banana leaves.

4) Banana processing: the students wanted to join an activity of demonstration of processing banana.

In addition, the students' desire to hold the activities of banana conservation was expressed in two aspects as follows:

1) Banana breeding: the students wanted to attend an activity of increasing banana sprouts by using the original tree's rhizomes.

2) Planting: the students wanted to attend a lecture of planting *Namwa Mali-ong* banana, and an activity of planting *Namwa Mali-ong* for conservation and utilization. This process took about 50 minutes for holding the activities.

The analysis of the results in students showed that they expressed their created awareness of preserving and utilizing the banana in many ways, extended into at least two levels: 1) Receiving Phenomena and 2) Response to Phenomena. For ***Receiving Phenomena level***, the students were concentrated on opinions of designing activities. They selected things attentively when the facilitator asked them to arrange the priority of the activities. It was also observed that the students enjoyed chosing the activities to attend. Those results also reflected the created consciousness of ***response level***, that the students were stimulated by the desire to join the activities chosing part.

4. Actual Practice Together: The porpose of this process was to verify the students' understanding of *Namwa Mali-ong* banana conservation and utilization. The seven activities that the students attended were listed below.

1) Activity of Paring the Banana with Disease Treatment: All of students coorperated in the activity. Most of the students compared the colored paper with a name of a disease with the banana's benefit correctly and on time. The researchers observed and witnessed the students' determination in studying from the vinyl broads at each base so that they could remember the information to play the game. Most of them could follow the rules indicated by the researchers.

After the game, the research assistants and the students summarized the activity together. It was found that the students received the information of *Namwa Mali-ong* banana about its benefits of the disease treatment from the vinyl broad shown at the base. The students participated in the game by themselves. As a result, they could remember things, have fun and get excited with the activity. However, some students gave some comments about this activity; for example, the time period to remember and pair was too short so they could not remember nor pair things, and some of them were so excited that they could not pair the information correctly.

2) Activity of Answering Questions about the Benefits of Each Part of a Banana Tree: Most of the students were afraid of writing the wrong name of each part of the banana tree. The research assistants let the students remember the information from the vinyl board at the based. The students were given time to remember and then answer the questions. It was observed that all of the students were concentrated on reading and remembering the pictures. When the time was up, they stopped reading. However, some students did not follow the rule. After writing the answers on the picture, it was found that there were both correct and incorrect answers. Those incorrects ones were resulted from being too excited to remember.

After the activity, the researchers and students summarized it together. The students practiced their remembering and writing skills, respected the rules, and learned about the benefits of each part of the banana tree from the vinyl board. They were excited in joining the game.

3) Activity of Demonstration of Making a Food Container from Banana Leaves: The students made a food container or *Krathong* from banana leaves which could reduce the amount of foam usage. The researchers invited a villager who was professional at making Krathong from banana leaves as a speaker. While the speaker was demonstrating how to make Krathong step by step, the students were allowed to ask questions. After the demonstration, the students tried to make their own Krathong.

The speaker, research assistants and students summarized the activity together that the students showed their observing skill as seen when they concentrated on the demonstration and asked questions when they could not follow the process, or did not understand. All of the students could make a Krathong, varied and based on their style. The research assistants asked one of the students who made a beautiful one and fould that the student used to make it with the family. That student was proud to be able to make the *Krathong* and was determined to apply this skill into real-life situation.

4) Activity of Demonstration of Banana Processing: the researchers invited a speaker, who processed bananas for a living, to demonstrate how to process banana to the students. The demonstration went by slowly so that the students could catch everything, ask some questions or discuss during the activity.

The summarization after the activity revealed that the students showed their observing skills while attending the banana processing activity. Duting the demonstration, the students asked the speaker some questions in every process, so the other students could follow and analyze it. The demonstration was held with a group of students, so they could show their opinion in each process. The students learned about processing banana which was the local wisdom. Moreover, they would like to apply the skill and experience from the demonstration into real-life situation or earning income.

5) Activity of Increasing Banana Sprouts by Using the Original Tree's Rhizomes: The researchers invited a speaker, who was professional at increasing banana sprouts and a member of the community, to demonstrate how to increase the number of banana sprouts by using the original tree's rhizomes. At the process of cutting the rhizome in pieces, the speaker was very careful about the students' safety. The students could catch the position of cutting and how to cut the sprout. If they could not follow any process, they were allowed to ask and share ideas.

The speaker, research assistants, and students summarized the activity together. The students learned how to increase banana sprouts from the original tree's rhizomes from observing the demonstration. They were interested in the demonstration. Asking the speaker showed that they had already analyzed the demonstration.

6) Activity of Demonstration of Planting *Namwa Mali-Ong* Banana: The researchers invited a speaker from the community to demonstrate how to plant *Namwa Mali-ong* banana. Vinyl board was also set as the learning assistant. At the beginning of the lecture, the speaker asked some questions and created a relaxing environment. The speaker explained the process of planting and told some techniques in some processes so that the students understood more clearly. During the lecture, the speaker stimulated the students to answer the questions so they could participate the activity.

The summarization of the activity revealed that most of the students practiced listening, thinking, and analyzing skill, so they understood more clearly. However, some students were not concentrated in the lecture at the final part. The research assistants observed that some of them were bored, as shown from their faces, or talking with their friends during the lecture. The speaker tried to motivate them by asking them some questions.

7) Activity of Planting *Namwa Mali-Ong* Banana for Conservation and Utilization: The researcher cooperated with the community leader to announce the villaters who desired to participate the activity. The researchers prepared the area for planting and *Namwa Mali-ong* banana sprouts for the participants.

The summarization of this activity revealed that all of the students earned banana-planting skill and were proud of planting this kind of banana because of its value to the community. They would apply this skill into their own area in order to preserve this kind of banana and for its various benefits. At Level 4, all seven activities took about six hours.

It was found that the students showed their created awareness of conserving and utilizing the banana in many ways, extended into at least three levels: 1) Receiving Phenomena, 2) Response to Phenomena, and 3) Valuing. At the level of ***Receiving Phenomena***, the obvious expression of the students was their attention and willing to learn. For example, while at the game of paring, the research assistants observed the students' attention to remember the information from the vinyl boards to play the game. The game of answering questions also revealed the students' intention to read and remember the picture for answering the questions. Moreover, the students showed their willing to listen to the speakers making food container from banana leaves and demonstrating how to process bananas. They tried to ask some questions when they did not understand, which manifested their intention and willing to learn.

For the lelvel of ***Response to Phenomena***, the most obvious expression of the students was their enthusiasm with the activities. For example, the students playing the paring game and making it in time manifested their enthusiasm to follow the rule. Furthermore, during the demonstration of making a food container from banana leaves, the research assistants noticed the students' satisfaction and intention to make it. Those expressions reflected the created consciousness at the level of response with their satisfaction. Moreover, the students admired their *krathong* as observed by the research assistants. Regarding the students' opinion on their *krathong*, they pointed that they were proud of their *krathong* and desired to apply this skill into real-life situation. As well as at the demonstration of banana processing or the local wisdom of food, the observation showed that the students liked the lecture and were determined to try it again at home. Those expressions reflected the created consciousness at the level ***valuing*** with admiration. **Finally**, at the activity of planting *Namwa Mali-ong* banana, all students planted banana trees together to preserve this kind of banana. They also promised that they would water and take care of the trees. Those expressions were the feeling of affection and self-presentation, which reflected the created consciousness at the level of Valuing with affection/conservation and self-presentation to water the banana trees.

5. Reflection: The objective of this process was to let the students summarize the learning activities through the reflection stage. The researchers asked the students some questions, while the research assistants and speakers commented on what they had learned. Then, they summarized the information together. The students said that they were proud of planting *Namwa Mali-ong* banana in the community and promised to plant this kind of banana at home and invite the people around to do so. The students wanted other activities about preserving *Namwa Mali-ong* banana at Bang Krathum School. They felt that the time of each process was too short. The research assistants remarked that the students' opinions and decisions at each process were found as the deference to their friends. The researchers also stated that those four processes of learning encouraged the relationship among the students, researchers, research assistants, and community speakers. The speakers mentioned that they were proud of participating this activity and conveying their knowledge to the students. This process took about one hour.

According to the analysis of the result of the students, it was found that the students showed their created consciousness of conserving and utilizing *Namwa Mali-ong* banana in many ways, spreaded into at least three levels: 1) Receiving Phenomena, 2) Response to Phenomena, and 3) Valuing. At the level of ***Receiving Phenomena***, the most obvious expression of the students was that they were intentive and willing to learn, as observed from their intention to listen during the stage of discussion. When the researchers asked the students to reflect their opinion about learning management, each student thought and answered. This reflected the created

consciousness at the level of willing ***Response to Phenomena.*** Moreover, promising to plant the banana tree at home and inviting people to do so reflected the created consciousness at the level of ***Valuing***. Innitiation and invitation, as well as the desire to hold the activities of conseving *Namwa Mali-ong* bananas for the students at Bang Krathum School, also reflected the created consciousness at the level of valuing with the admiration of the activities.

Here, the framework of participatory learning management for preserving and utilizing *Namwa Mali-ong* banana, is shown in Figure 1.

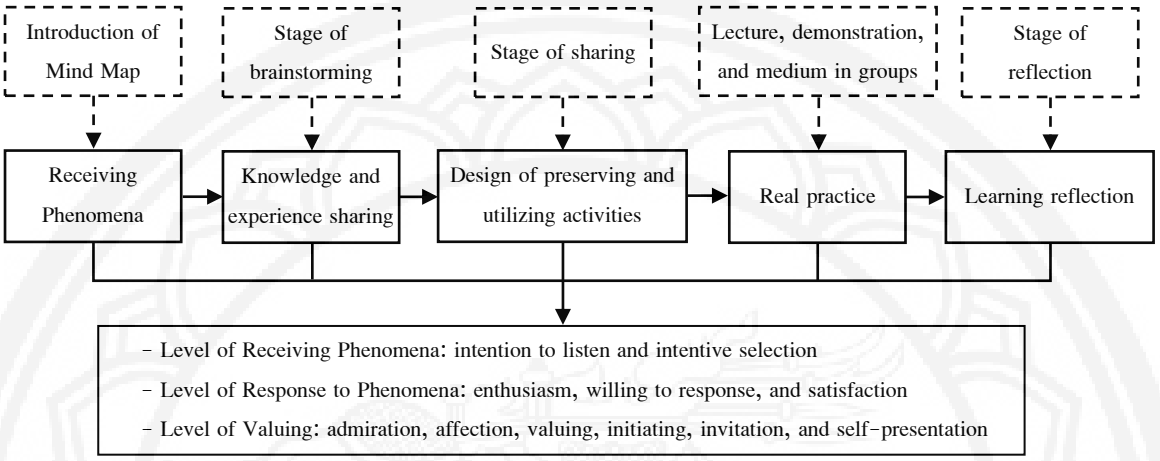

Figure 1 The Participatory Learning Management for Preserving and Utilizing *Namwa Mali-Ong* Banana

Discussion and Conclusion

This participatory action research (RAR) is conducted to answer the question "how to manage participatory learning to create consciousness to preserve and utilize *Namwa Mali-ong* banana". The main target was the group of 39 students, joining the designed activities for two days. The study was carried out at Wat Thamakham School, Bang Krathum district. It could be concluded that the participatory learning management to create consciousness of conservation and utilization of *Namwa Mali-ong* banana consisted of five processes: 1) receiving phenomena, 2) response to phenomena, 3) design of preserving and utilizing activities, 4) actual practice, and 5) learning reflection. Moreover, each process created consciousness within the students of preserving and utilizing *Namwa Mali-ong* banana in various ways. In sum, it consisted of intention to listen, intentive selection, enthusiasm, willing to response, admiration, affection, initiation, and invitation. Those expressions, considered by Bloom's (1956) affective domain, showed the students' consciousness in three levels: Receiving Phenomena, Response to Phenomena, and Valuing.

The results of this study contain interesting issues to be discussed as follows. Firstly, the characteristics of created consciousness are different among the activities of each process. Different purposes result in different learning process, method, content, time, or interaction with related persons. The purposes of the processes 1 – 3 result in the students' created consciousness of conservation and utilization *Namwa Mali-ong* nanana, in the forms of attention to listen, enthusiasm, and willing to response. Meanwhile, after processes 4 and 5, the students showed their created consciousness of conservation and utilization of *Namwa Mali-ong* banana, in the forms of attention to listen, enthusiasm, willing to response, admiration, affection, valuing, initiation, and invitation. The result shows that process 4 (actual peactice) and process 5 (learning reflection) result in the

created consciousness of conservation and utilization of *Namwa Mali-ong* banana, Valuing level. The result is also in agreement with Topithak et al. (2018, p. 119), which suggested that learning from actual practice helps the learners think and summarize their knowledge. The experience results in the learners' feeling of procession, valuing, and desire to preserve for utilization. Also, Boonsong (2008, pp. 3-4) has found that learning activities, based on environmental education activities to let the learners see changes and situations that probably cause future problems and think about solutions together, are the process to encourage the learners realize values and change their behaviors to protect and develop the environment.

The next issue is concerned with the consciousness of conservation and utilization of *Namwa Mali-ong* banana, which occurs in the levels of lower than Valuing. The activities were held only two days, which could not reach the participants to the higher levels, including Organization and Internalized Value. This is due to the fact that it takes longer time to collect knowledge, skills and experience in order to reach those two levels. In addition, the students' limitations also affect on the development. For example, internal factors that caused the students' behaviors were such as thought and consideration to think and design something's value, as well as external factors such as parents, relatives, siblings, friends, trachers, media, other people, culture, tradition, and religion. Moreover, according to Sutthirat (2009, p. 98)'s learning management to develop the learners' consciousness, the students should learn from various methods with repeating and continuing actions, emphasized on both internal and external factors that affect on consciousness creation. For Sanpakeaw (2013, p. 142), to create consciousness of energy conservation among the youth, the process should be supported from families, schools, and other related organizations of energy conservation. Then there would be changes of thinking, attitute, and behavior, and finally better habits. In conclusion, to develop the consciousness of conservation and utilization of *Namwa Mali-ong* banana to reach Level 4 (Organization) and Level 5 (Internalizes Value), the participatory learning should be carried out continually. The students should be supported from the family, school, and other related organizations of *Namwa Mali-ong* banana conservation and utilization.

Nevertheless, the students' participation in conduction research is considered more important than the results of the study, especially about creating consciousness which cannot be merely focused on technology. Actual practice at a particular area is more vital so that the students can learn together with a university and community.

Suggestions

1. The results of the study reveal that participatory learning can create consciousness of conservation and utilization from *Namwa Mali-ong* banana to primary students (P.5-P.6). Therefore, schools or related organizations can adapt the framework to create consciousness with the youth in other issues.

2. Design of various learning types by providing content and practice, using media, activities, techniques, speakers, and various methods, is significant to stimulate learners' consciousness in many ways and levels. Therefore, the design of learning to create consciousness should emphasize those mentioned varieties.

3. In order to expand the learning network, the universities in Phitsanulok Province should support participatory learning in order to create consciousness of conservation and utilization of *Namwa Mali-ong* banana to the primary students from the schools in Bang Krathum District.

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