

## The Effects of Learning Activities on Young Children at Child Development Centers in the Upper Northeastern Region Using Local Wisdom

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**[Abstract]** The purpose of this research is to study the effects of learning management for young children, aged 3 to 5 years old, at child development centers in the upper Northeastern region using local wisdom. The study group is comprised of 200 children at child development centers in Udonthani, Nongbualamphu, and Nakhonphanom. The learning management for young children consists of Sri Isan soil (pottery), Kong Khoa Noi Ban How (rice box) and Northeast fabric weaving (Praewa fabric). Children's learning was assessed based seven topics: 1) curiosity 2) knowledge acquisition 3) satisfaction in learning 4) problem solving 5) interaction 6) associative thinking, and 7) answering questions. The research found that the average score of the assessment in the young children's learning is higher than before activities in every center.

**[Keywords]** young children, local wisdom, learning ManActivities with indigenous crafts, child development center

### Introduction

Early childhood education is the key to establishing a strong foundation in children's education. The Eleventh National Economic and Social Development Plan (Office of the National Economics and Social Development Board, 2012) concluded that the quality of education in the country is one of the main problems that hinders the development of the country, especially the intellectual ability of the children. Therefore, it is important to strengthen public and private institutions to meet international standards. Moreover, there should be an emphasis on young children's intellectual, emotional, moral and ethical development. Child development centers should be promoted at the local, business, and public levels in ways that correspond with Thai society. Also, the quality of the caregivers is very important, as well as the qualified elderly, in order to promote children's development. It is obvious that the government strongly supports early childhood education related to local contexts. Local governments are studied and given budgets to support their early childhood education plans, basic learning management plans, and development plans for local governments.

According to the local organization about education management at the early childhood level (Department of Local Administration, n.d.), early childhood education is intended for young children aged 3-5. Based on Standard 8, schools are required to offer curriculum and learning processes focusing on the students. Also, the curriculum has to be appropriate for the students and contexts, as well as promoting the learning experience. Based on the Standard 11, schools will make use of local wisdom to create educational activities. Moreover, local people are encouraged to design curriculums for early childhood education. Therefore, it is obvious that the local organization emphasizes the use of local resources as tools for young children's development, which corresponds with the context.

In Thailand, there is local wisdom in indigenous fine crafts in several areas, which can be divided into four regions: North, North East, Central, and South. Each region has its own distinctive culture, especially the North Eastern region that has its own ancient wisdom passed on

from generation to generation through pottery, basketwork, and silk weaving. The Wang Derm Palace Restoration Foundation (2013) has gathered the information of Ban Chiang Pottery and found that the pottery can be traced to craftsmanship in the prehistoric period. The pottery, found in Ban Chiang, Udomthani, was divided into three periods: Early, Middle, and Tare periods. Each period had its own features. Isan Gate (2017) stated that Kongkao and Katip are containers holding glutinous rice of the North Eastern folks. The difference of both containers is their shape. Kong Kao looks like a basket with a lid and a wooden base. It is stronger, made by bamboo with the edge protected by wicker. This container shows great local wisdom. It keeps rice warm while letting steam out of the container so that the rice will not turn wet. About Praewa Silk, the Queen Sirikit Department of Sericulture (2012) explains that Prewa Silk is handmade. It is the symbol of the Phu Tai people, who mostly residing in Kalasin, Nakhonphanom, Mukdahan, and Sakonnakhon. In the past, Prewa Silk was woven to be used as a piece of cloth for carrying items over a shoulder or the chest. It was also used as a receiving cloth when paying respect to Buddha's image, usually square-shaped with frills on both sides, together with Pre Mon. Moreover, it was used as handkerchiefs and clothes. These three examples of local wisdom have long been part of the Thai people in the North Eastern region. Therefore, local young children should be taught the great local wisdom so that they pass it on to the next generation. According to Issaramanorose et al. (2016), the problem and obstacle in using learning tools to promote young children development is insufficient knowledge and understanding of the teachers to apply local wisdom to their teaching. They also do not understand the process of creating activities that use local wisdom as a tool with which to enhance young children's development.

The researchers are interested in studying the results of learning management on the young children in the child development centers in the North Eastern region by using local wisdom. It will be beneficial for young children if teachers are able to apply knowledge suitable to the children's potential using the local context.

### **Research Objectives**

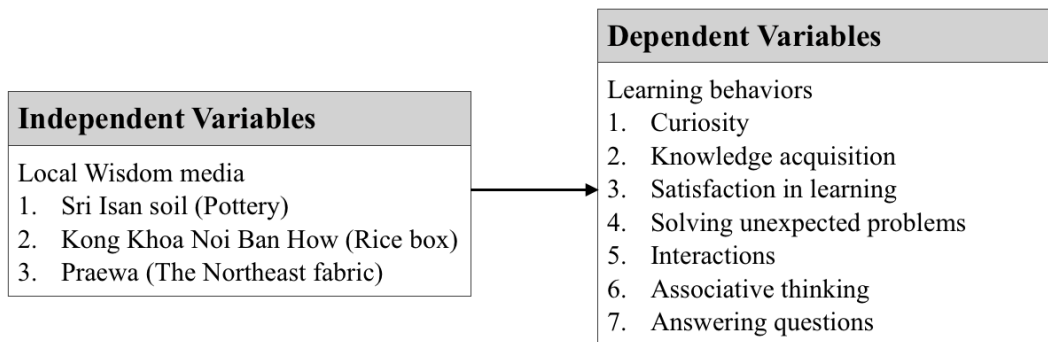
The objectives for this research is 1) to study the learning behavior of young children at child development centers in the upper Northeastern region using local wisdom; 2) to compare the learning behavior scores of young children using local wisdom before and after activities; and 3) to compare the learning behavior scores of young children using local wisdom before and after activities using various categories media.

### **Research Process**

#### ***Population and Sample***

Population is young children age 3-5 years old at child development centers in the upper Northeastern region. Two hundred young children at child development centers in Udon Thani, Nongbualamphu, and Nakhonphanom served as samples for the research. Multi-stage sampling was used to gather data from eight provinces including Northeast, upper north, upper middle and lower north areas. We also use systematic random sampling to collect data from Children development centers in from three provinces.

## Conceptual Framework



## Research Instruments

The instruments that are used in this research include **1.** A handbook for learning management using local wisdom tool for young children at child development centers under local administration consists of 3 units of learning as follows: *1.1*) Sri Isan soil teaches about pottery of Ban Chiang in Udon Thani province. *1.2*) Kong Khoa Noi Ban How teaches about rice box for people in the northeast. *1.3*) Praewa teaches weaving the local fabric typical in the northeast. All three Units consists of everyday activities: developing large and small muscles, developing emotions and cultivating morality and righteousness, developing social character, developing thinking, developing language and enhancing imagination and creative thinking. They meet the criteria of the experience plan of the Department of Local Administration.

**2.** The learning assessment of young children using local wisdom in the Northeast of child development centers under the Department of Local Administration consists of the following sections:

2.1) A handbook for assessing learning behavior of young children using local wisdom in the Northeast of child development centers under the Department of Local Administration is a behavioral assessment for researchers to evaluate learning behavior of young children before and after learning management using score rubrics. It consists of 7 items in the assessment.

2.1.1 Curiosity includes an interest in participating in activities, enthusiastic learning and attention in doing activities

2.1.2 Knowledge acquisition includes questioning and searching for self-interest.

2.1.3 Satisfaction in learning includes enjoyment, happiness and fun when doing activities.

2.1.4 Solving unexpected problems includes finding answers and gathering different ways to make decisions in accordance with the situation.

2.1.5 Interactions include accepting the opinions of others and exchanging opinions through speech.

2.1.6 Associative thinking includes doing activities and solving similar problems.

2.1.7 Answering questions includes answering questions in accordance with the issue and giving proper reasons.

2.2 Criteria for learning behavior of young children using local wisdom in the Northeastern region is divided into four levels.

- Giving 3.50 - 4.00 points means very good.

- Giving 2.50 - 3.49 points means good.

- Giving 1.50 - 2.49 points means moderate
- Giving 1.00 - 1.49 point means fair

### Data Analysis

Below is the information of data analysis on learning behavior assessment of young children.

1. The scores on learning behavior assessment of young children using local wisdom tools at child development centers under the Department of Local Administration in the Northeast is analyzed as follows.

1.1 A comparison of average scores for assessing children's learning behaviors using local wisdom at child development centers under the Department of Local Administration in the Northeast was analyzed as an overview.

1.2 A comparison of average scores for assessing children's learning behaviors using local wisdom tools at child development centers under the Department of Local Administration in the Northeast was analyzed before and after by categories media.

### Research Results

The results are obtained from the analysis of data on assessing children's learning behaviors using local wisdom tools at child development centers under the Department of Local Administration in the Northeast. Table 1 shows a comparison of average scores for assessing children's learning behaviors using local wisdom tools at child development centers under the Department of Local Administration in the Northeast.

Table 1

Comparison of Average scores for Assessing Children's Learning Behaviors

Assessment	Center 1		Center 2		Center 3		Center 4		Center 5		Total	
	X	S.D.	X	S.D.	X	S.D.	X	S.D.	X	S.D.	X	S.D.
Before using local wisdom	1.7	0.48	2.1	0.4	2.2	0.4	2.2	0.4	2.1	0.4	2.11	0.46
After using local wisdom	2.5	0.54	2.8	0.4	3.0	0.4	2.9	0.4	3.0	0.4	2.88	0.47

From table 1, the average scores for assessing children's learning behaviors before using local wisdom tools was 2.11 and after using local wisdom tools is 2.88. The average scores of children's learning behaviors after using local wisdom tools is higher than the average score before the learning.

Figure 1 shows a comparison of the average score of the learning behavior assessment of young children using local wisdom media "pottery" before and after the activity.

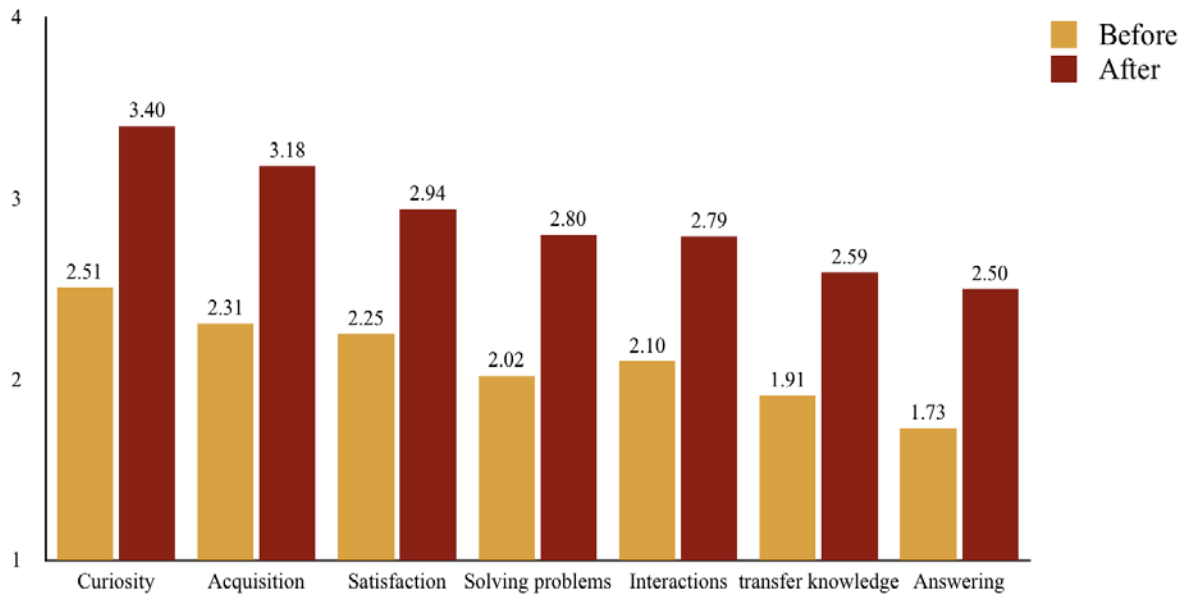


Figure 1. Teaching children making pottery

The comparison of Figure 1 showed that the mean score of the learning behavior of early childhood using local wisdom media- pottery have scored higher in all sides after the activities, which illustrated that the curiosity was the highest mean of behavior and then followed by knowledge acquisition and learning satisfaction respectively.

Figure 2 shows the comparison of average scores for assessment of learning behavior of young children using local wisdom media “Rice Box” before and after activities.

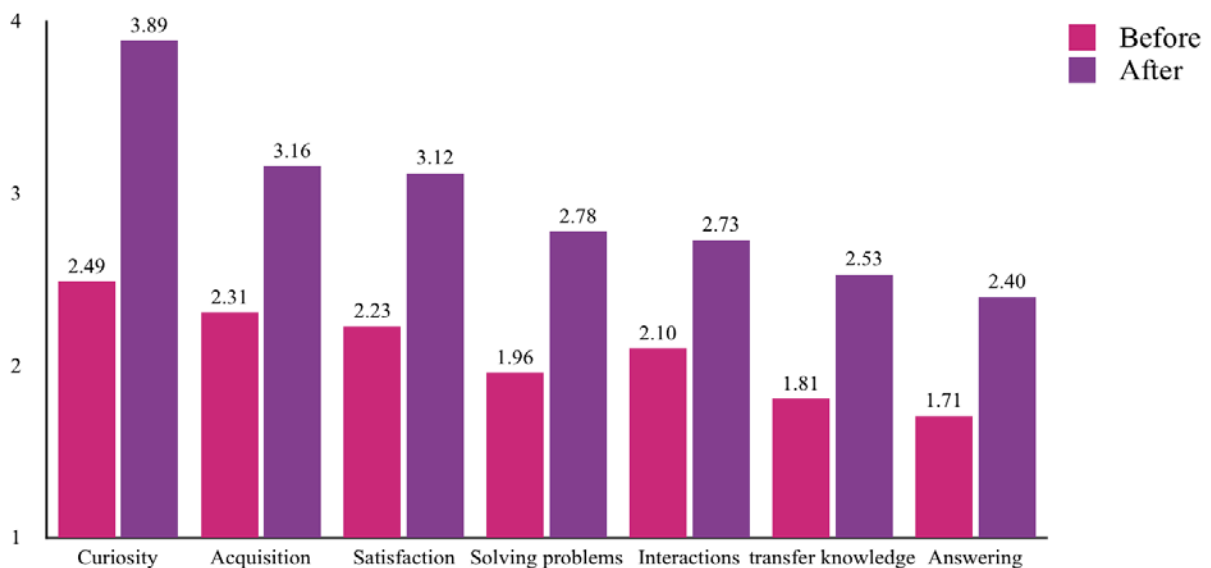
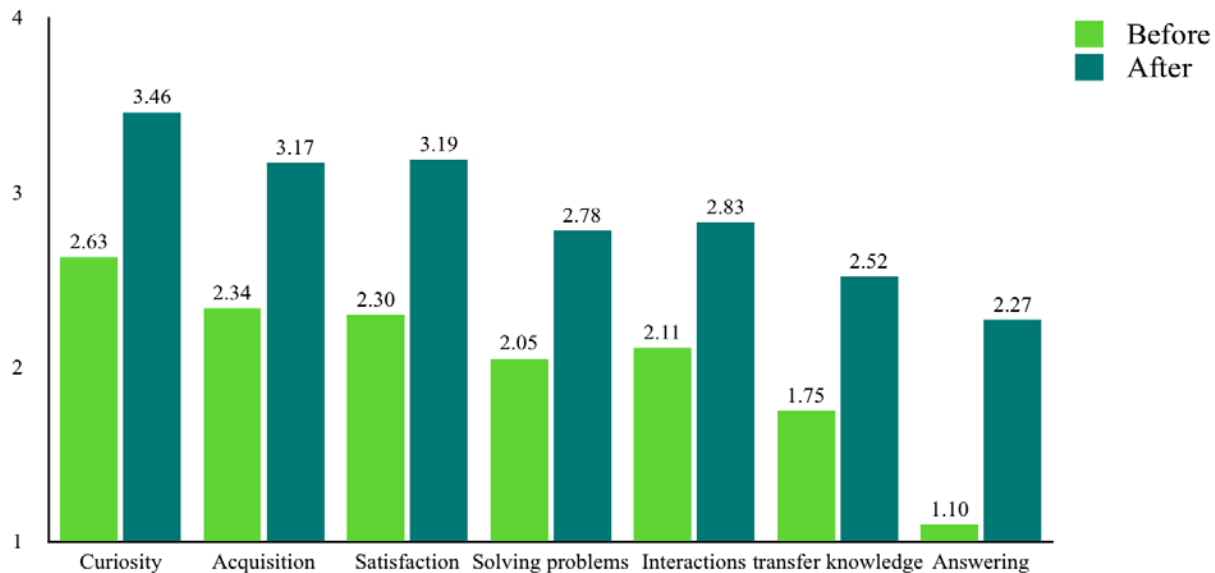


Figure 2. Using Rice Box as Teaching Tool

The comparison of Figure 2 illustrated that the mean score of the learning behavior of early childhood using local wisdom media “rice box” have scored higher in all sides after the activities, which showed that the curiosity was the highest mean of behavior and then followed by knowledge acquisition and learning satisfaction respectively.



*Figure 3. Using Praewa as a teaching Tool.*

Figure 3 shows the comparison of average scores for assessment of learning behavior of young children using local wisdom media “Praewa” before and after activities. The comparison of Figure 3 illustrated that the mean score of the learning behavior of early childhood using local wisdom media is Praewa have scored higher in all sides after the activities, which proved that the curiosity was the highest mean of behavior and then followed by satisfaction in learning and knowledge acquisition respectively.

### Discussion

According to the learning behavior assessment, the number before the activity is 2.11 while the number after the activity is 2.8, which is higher. Also, there are the differences in each category of the learning behavior before and after activities. The category that has the biggest difference in before and after activities is knowledge seeking, which is 0.85. That number of curiosity is 0.84 and that of knowledge satisfaction is 0.82 respectively. However, the average of the assessment is higher after activities in all categories.

About curiosity, children’s curiosity is stimulated when they interact with concrete objects. This finding coincides with that of Chareonwongsak (2011). He states that children are curious from birth to early childhood. They exercise their curiosity by touching, looking around and putting something in their mouth to explore. As they grow older, they will start asking questions. Based on researches, the activities were involved in encouraging children to touch real objects. Moreover, the learning management was designed to be interesting. As a result, the children’s curiosity increases. As a result found the behavior of learning about the curiosity of the local

wisdom media had the mean of good behavior scores in all three media. The Rice box was very good ( $x = 3.89$ ), followed by Praewa ( $x = 3.46$ ) and the pottery ( $x = 3.40$ ) respectively.

Young children's knowledge seeking is related to their curiosity. It's the basic of knowledge seeking. When they have a problem, they will try to solve it by looking for the solution. In this research, the learning plan encourages children to seek knowledge from teaching materials. This corresponds to Rattanawaropas' findings (2010). Based on her study about the effect of light on young children's knowledge seeking skill, children will benefit from activities with hands on experience though their five senses together with materials and learning tools provided by that that teaches. The children get interested and enjoy the activities through problem solving process, which results in their learning and solutions to the problems. From the experiment, the young children touched the real media and have dealt with the media. As a result found the learning behavior of knowledge acquisition of local wisdom media had the mean of good behavior scores in all three media. The mean of the pottery was highest ( $x = 3.18$ ), followed by Praewa ( $x = 3.17$ ) and rice box ( $x = 3.16$ ) respectively.

Young children's learning satisfaction occurs when they have positive attitude towards that learning, resulting when their needs are met. According to the learning management the learning management in this research, study and playing, which meets the needs of the children, creates learning satisfaction. Similarly, Jaddum and Insombat (2012) studied that effect of outdoor activities using mathematic games on the children's mathematical ability and learning satisfaction. They found that the children have a higher level of learning satisfaction. When the children are happy with the mathematic games, they become enthusiastic to participate in the activities, which results in their positive attitude toward mathematics. As a result, their mathematic skills will improve which is beneficial to their development. In class room that children have been involved in activities making the children happy to learn about the local wisdom media. The mean score of the behavior scores was good at all three media. The mean of Praewa was highest ( $x = 3.19$ ), followed by rice box ( $x = 3.12$ ) and pottery ( $x = 2.94$ ) respectively.

The problem solving of children's activities will learn how to solve problems such as when the number is not enough for all children. Children will share and wait for the other players to finish first and then play. As can be seen from the increase in average behavior scores higher than before activity. At a good level, the highest mean of pottery ( $x = 2.80$ ), followed by rice box and Praewa. The mean scores were the same ( $x = 2.78$ ).

Interaction By developing a learning activities model using the local wisdom media. This is an Active Learning activity that allows children to interact with teachers. And children with children after the event, it was found that children had a higher average behavior score in all media and activities at a good level. The average Praewa ( $x = 2.83$ ) was followed by pottery ( $x = 2.79$ ) and rice box ( $x = 2.73$ ) respectively.

About knowledge integration, young children learn from concretion to abstraction, or from easy things to difficult ones. Learning activities that encourages children to interact directly with concrete objects promote their knowledge integration. Similar to Pestalozzi's theory (as cited in Yoosomboon, 2010), children learn through experience gained by objects or concrete materials. They notice and understand things through their eyes and touched. Moreover, Piaget's idea, referred by Yoosomboon (2010) suggest that children learn through concrete objects, which can develop their cognitive process. Also, one important process is Assimilation. It is a process in which children try to incorporate the information from their environment into their existing knowledge. Moreover, the children will adjust their intellectual structure to suit the new experience. This process is called Accommodation, which works together with Assimilation

simultaneously. In activities, children play with the rules and free play and allow children to use their thinking skills fully. Children are associate thinking that can be seen from the pottery media, which is used in children's daily life. As a result of the research. The learning behavior of the local wisdom media linkages had the mean of good behavior scores in all three media. The highest mean of pottery was ( $x = 2.59$ ), followed by rice box ( $x = 2.53$ ) and Praewa ( $x = 2.52$ ) respectively.

When children answer questions, it shows their understanding. Children integrate existing knowledge into the new one through critical thinking, as shown in the form of oral language. The teachers use various kinds of questions to encourage their critical thinking to solve problems. Similar to Pinlawassana (n.d.) on Teaching Children about Critical Thinking, in order to integrate questions to develop children's thinking, the questions should be appropriate to the activities. It is important to use lower level questions to introduce the activities, draw their attention or to revise their existing knowledge. Then higher level questions will be used to develop their thinking in a higher level. The teacher must have a good questioning technique before giving the learner the right answer. Therefore, the learning behavior of the knowledge of local wisdom media had the mean of behavior scores at the moderate level. The highest mean of pottery was ( $x = 2.50$ ), followed by rice box ( $x = 2.40$ ) and Praewa ( $x = 2.27$ ) respectively.

Based on research about young children's learning, children learn through concrete objects, the five senses and moving from easier activities to more difficult ones. The teachers also play an important role in encouraging the children's learning though questions and support their activities.

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