



# Designing a learning center of traditional rice in Sakon Nakhon



Sponsored by Tao Ngoi  
Pattanasuksa school

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This report represents the work of seven Chulalongkorn University undergraduate students submitted to the faculty as evidence of completion of a degree requirement.

## **Abstract**

Students in Tao Ngoi Pattanasuksa school are facing the problem about the lack of knowledge and awareness about the importance of traditional rice varieties, also the effect of traditional rice varieties on biodiversity. With this issue, Tao Ngoi Pattanasuksa school want to preserve the traditional rice varieties through the designing of learning center. Our team provided the active and informative activities that can raise students' awareness and knowledge about traditional rice varieties. Students have began to realize the importance of preserving traditional rice varieties and improved the knowledge about traditional rice varieties. Our recommendations focus on the cooperation with other traditional rice preservation organizations and constructing sustainable learning center that can be developed further.

# Executive Summary

## Introduction

Rice is one of the most important product and has been widely used in all over regions of Thailand especially in central and north-eastern part. From the past until now, the traditional rice varieties have been crossbred into the new rice varieties called ‘hybrid’, which was used dominantly these days. With this transition, the use of traditional rice varieties has been reducing from more than five thousands to only fews hundreds rice varieties now. With this problem, students in this generation cannot understand and realize the importance of traditional rice varieties. This leads to the lack of awareness about the traditional rice varieties. Students in Tao Ngoi Pattanasuksa school located in Sakon Nakhon are also facing this problem which needs to be resolved. Therefore, **the goal of our project is to raise awareness and knowledge about the value of traditional rice among students in Tao Ngoi Pattanasuksa school through the design of learning center in the school.**

## Objectives

1. To determine the awareness, knowledge and interests of the students at the Tao Ngoi school in regards to traditional rice varieties .
2. To identify the contents and delivery methods that could be effective in improving students’ perceptions about traditional rice.
3. To improve learning methods by designing a more effective learning center, that would be easily accessible to students in the Tao-Ngoi Pattanasuksa school.

## Methodology

The initial information on the actual knowledge and understanding of students about traditional rice could be collected by documentary research through social media and articles. After that, survey of students and interview of students, teachers, members of agricultural club and farmers were used in order to get basic information about awareness and knowledges about traditional rice. Moreover, visiting other learning centers that are related to rice, which are School of Rice and Farmers and Kao Hom Dok Hung community, was used to collect the information about varieties of traditional rice, inspiration for using traditional rice and activities that can catch students attention. Finally, Four Quadrants method was used in order to select which activities could be provided in the learning center about traditional rice.

## **Results**

Some key findings of our project were described as follows;

### ***Finding 1 : There is knowledge gap among the students in Tao Ngoi Pattanasuksa school about traditional rice varieties.***

According to the survey provided for students to select the traditional rice varieties that they know in the list, the majority of students can recognize the traditional rice varieties less than half of the list.

### ***Finding 2 : Students do not realize the importance of traditional rice preservation even though they have visited the learning center and are surrounded by rice agricultural environment.***

The survey shows that most of students come from farmer's family and have experience in cropping rice. Moreover, most of them have also visited the learning center provided by the school. However, from the interview, students cannot tell the exact traditional rice varieties and still do not know the reasons why everyone has to preserve the traditional rice.

### ***Finding 3 : Students of all ages and genders are attracted by active learning activities especially the activities that let them creatively design tangible products by themselves***

The survey result of all ages and genders shows the same trend that most of students prefer Science day than other activities provided in the school. Then, we interviewed the students to find out why they like Science day the most. The common answer from students is that there are activities in Science day including creating artificial rocket and creating the clothes from recycle trash which are very interesting for them since they have a chance to create the tangible products by themselves.

### ***Finding 4 : Health concerns and nutritive value of traditional rice are the main factors that encourage people in Kao Hom Dok Hung community to preserve traditional rice.***

In Kao Hom Dok Hung community, the health issue and nutritive value are the main concern as it is the main reason of the villagers to switch back from hybrid to traditional rice. Therefore, they cooperate with the government to restore and preserve the traditional rice that have more nutritive value and good for health.

### ***Finding 5 : The students and teachers in Tao Ngoi Pattanasuksa school adopt His Majesty the King's philosophy as guidelines in living.***

From our observation and interview, students and teachers stated that "His Majesty the King Bhumibol and Her Royal Highness Princess Maha Chakri Sirindhorn's philosophy becomes a part of students' life as they use the 'Sufficiency Economy' as a strategy to proceed

to the self-reliant and sustainable life” Therefore, it demonstrates that the students in Tao-Ngoi Pattanasuksa school have His Majesty the king’s philosophy as guidelines in living.

***Finding 6 : The active activity including social media can improve students knowledge about traditional rice.***

QR code activity was used, followed by the Q&A activity about traditional rice to improve the students knowledges as an active activity. From the analysis of bounce rate as web traffic analysis and survey before and after visiting our learning center, it can be concluded that students are interested in QR code section and it really improves students’ knowledge comparing to before.

***Finding 7 : The visual and audio media of role model can raise student’s awareness most effectively***

From our observation and survey results, the students have improved the awareness of traditional rice preservation after joining the learning center. Over 71% of students know the importance of traditional rice preservation. Most of the answer that students provided is about maintaining the biodiversity of rice varieties which is presented in the video of His Majesty the King’s philosophy.

**Recommendations**

**We recommend teachers to integrate the knowledge about traditional rice into their subjects which are not related to agricultural subject.**

For example, in Thai class, the competition of writing poems and essay related to traditional rice and in social class, the geography topics combined with the story of area and type of land that is suitable for rice farming can be used to help improve students’ knowledge about traditional rice.

**We recommend the school to cooperate with other traditional rice preservation organizations.**

For instance, the district agricultural office could provide the activities, knowledge, and co-workshop for students in the school . And also kao Hom Dok Hung community can inform the advantages of traditional rice and explain the reason why we should preserve traditional rice species by sending the representatives to the school to lecture the students because both organizations have resources and budgets to inspire the transition of traditional rices of people in community around Tao Ngoi District.

**We recommend the school to have our learning center about the traditional rice as an activity in their ‘decrease study time, increase activity time’ program.**

Thus, everyone in the school will have a chance to visit the learning center and can get hands-on experience more intensively on the activities about traditional rice.

**We recommend students from agricultural club to continue leading the activities in our learning center.**

As our learning center provides some active activities, the students in agricultural club can continue leading these activities. For example, in QR code section, we have Q&A game to check their understanding after students scan the QR code so the students from agricultural club can lead the activity and also develop the activities to become more effective and useful in the future.

### **Conclusion**

The goal of this project is to raise awareness and knowledge about traditional rice among the students in Tao Ngoi Pattanasuksa school, Sakon Nakhon. To accomplish the goal, the designing of learning center about traditional rice could be used. Before doing the learning center, the survey and interview teachers, students, and farmers were used to gain information about point of interest, knowledges and actual awareness of those people. Overall, the results showed us that informing the importance, biodiversity of rice varieties and doing active activities could be used in the learning center about traditional rice to achieve the goal of our project.

### **Limitations**

Our team could not interview the students as planned. Students in each grade have different free time and could not have interview with us. Therefore, we selected to interview students as much as possible in the form of group interview. Moreover, the time for running the learning center also limited. Only few students can attend and visit our learning center.