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## Prototype of Sustainable Water Resource Conservation and Management

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### Abstract

Because Kanchanaburi has long been flourished in environment and natural resources, many people and visitors have continually visited this place every year. Especially, rafting in area of Thanam Na Muang Kanchanaburi pier has been the tourist' favorite activity. Although this activity has generated more incomes, it has extensively accelerated the degree of environmental and natural resources depletion. So, the objectives of the study aimed to study the quality of water and environment; to find the natural resources conservation and sustainable use; to collect database; to set up learning center; and to build up environmental public awareness by participating in environmental protecting activities. In this case, the people in community helped collect the sample of water and living creatures for river's quality analyzing purpose. They also gave information of water appliances and the existing environmental effects. The next step, the workshop was organized by using the results of the study as database. The participants of the workshop were the concerning parties joining to brain storm for the potential solution and conservation of water resources.

The study revealed the quality of three rivers, Kwai Noi, Kwai Yai, Mae Klong, and the quality of joining parts of river in Kanchanaburi. It showed that the quality of the three rivers were in good to moderate level of water quality standard, that is, the quality of water in Kwai Noi river was better than the quality in both Kwai Yai and Mae Klong. Over 1,000 rafts floated on the three rivers; consequently, they released sewage through the water without treatments. Students from Wisuttharungsri School has designed and produced the sewage containers, and then examined it on the model rafts. The results from presenting the research to community and concerning parties influenced the governor of Kanchanaburi province establishing committee to monitor traveling rafts, organizing workshop for raft owners and local administrative organizations, and supporting budget for installing sewage containers in 30 model rafts. Shortly, 80 raft owners installed the sewage containers in their rafts. The educational institutes, organizations and communities had cooperated in campaigning, educating, and being a role model on helping protect the environment. The outgrowth of the activities helped reduce the conflicts among governmental and individual organizations, raft owners, and communities. As a result, they uplifted their attitudes of being aware of the importance of water and environment conservation and management.

**Keywords:** -



## The Participatory Management of Community Broadcasting Tower: Pron Sub-District, Muang, Yala Province

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### Abstract

A broadcasting tower was a mass media for local people in villages and Tambons to distribute and to acknowledge information. It was also an instrument which the government can use to make understanding and to ask for the cooperation from local people. Most of broadcasting towers in three southern provinces has no certain policy and no appropriate management. The area of Pron sub-district, Muang, Yala Province was selected for the research. The stage talking for villagers was arranged to search for village problems which were teenager drug addicting and the unemployment of teenagers and women. The villagers wanted the broadcasting tower to be the center of news distributions in jobs, life-style and community unity. The news from the broadcasting tower must be reliable so that the villagers could make decisions in public policy, and could help the government to get rid of rumors in the three southern provinces.

The researchers has studied the nature of the Participatory Management of Community broadcasting tower at Pron sub-district, Muang, Yala Province and developed a Model of Participatory Management of Community broadcasting tower with PAR method. The research could invent a Model of Participatory Management of Community broadcasting tower which was appropriate with nature and crisis in three southernmost provinces. The model was developed under the concept of participatory communication. The villagers took turns to play the roles of setting policies, news producers, news conductors, and news consumers.

The Community broadcasting tower was a kind of operation room running with community ability under democratic and sufficient methodology. The research had also invented a lab description for the committee and the news conductors of Community broadcasting tower manual for news conductors. After this research, the Community broadcasting tower at Pron sub-district, Muang, Yala Province could be a pilot tower for more than 300 Community broadcasting tower in Yala, Patanee, and Naratiwas. Moreover, this research could train new researchers: students, villages and local government officers. Finally, it could establish the research unity between Yala Rajabhat University, Yala Health Bureau, Yala Information Bureau and Yala Provincial Administration Organization.

**Keywords:** Management, Community broadcasting tower, Participatory communication



## The Study of the Identity of Phra Nakhon Si Ayutthaya Province to Apply to the Thai Dessert Ceramic Container Product

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### Abstract

The study of the identity of Phra Nakhon Si Ayutthaya province to apply to the Thai dessert ceramic container product is to serve the need of the local community to increase the product value by bringing out the identity of the province and apply into the production of these ceramic containers. The researcher has studied and analyzed the problems, solutions as well as their consumer's behavior in order to understand the consumer's need and apply them into the design and production of the product. The research process start with the 'Qualitative analysis' which is to determine the genuine identity or traits of the Phra Nakhon Si Ayutthaya province by mean of studying and collecting the data from written document to summarize, analyze and synthesize into the design of the ceramic container for Thai dessert. Additionally, the researcher studies the attitude and opinion of the 3 Thai dessert entrepreneur, 3 ceramic traders and 100 potential customer who are tourists visiting various places in the province. This 'Qualitative analysis' aims to understand the attitude toward the using of the Phra Nakhon Si Ayutthaya's identity in the production of the ceramic container for Thai dessert.

The research result show the consumer's satisfaction of the ceramic container for Thai dessert on its pattern of the traditional weaving carp fish which clearly express the identity of Phra Nakhon Si Ayutthaya province, its colors and the initiative of applying other materials with ceramic. This design product is beautiful and suitable to be a souvenir, convenience to use and provide a choice for consumers to help reduce the usage of conventional plastic container. From the community front, it helps the local producers to enhance their production skill and be able to harmoniously apply other material with ceramic. By combining local know-how with academic knowledge, this has resulted in the practical learning which can create product with high standard and variety, the product that are accepted by consumers and able to expand into the medium and hi-end market. Ultimately, it will boost the family income which in turn, will bring about a better and sustainable standard of living.

**Keywords:** -



## The Quality Standard Development of Herbal Jeaw Bong

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### Abstract

The quality standard development of herbal jeaw bong included a study and development of Na-ngam Nau herbal jeaw bong quality to meet the Thai FDA standard and the community production standard (132/2546).

The study found that local food producer owned a good local wisdom, community, culture, natural resource, and local raw materials. However, there were some critical control points of jeaw bong products which should be correct in order to meet the standard. It was found that products water activity and moisture content were off the standard. In addition, there were poor food sanitation which caused microbial contamination. Moreover, there was non heat treatment prior to packing which could also encourage microbial growth. Therefore, to control these critical points, training of the good manufacturing practices was conducted and also the knowledge of the standard requirement was trained to jeaw bong producer group. Heat treatment at 80°C for 10 minutes before packing directed the developed herbal jeaw bong to meet the community production standard no. 132/2004. Good hygiene practices, also directed them to meet the Thai FDA standard. Sensory analysis of developed herbal jeaw bong was higher consumer satisfying than the controlled jeaw bong. Moreover, this study also found that the shelf life of developed herbal jeaw bong which packed in polystyrene package stored at room temperature were 20 days, whereas, the one which stored in the refrigerator at 8°C were 45 days.

**Keywords:** -



## Online Society : an Innovation for English Learning in Nakhon Ratchasima Province

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### Abstract

The purpose of this research was to use a social network online enhancing student's motivation in self-access learning. The experimental group was 78 second year students majoring in English of Nakhon Ratchasima Rajabhat University. This experimental group was selected by Purposive Sampling Method. The experimental time was 20 weeks. Designing research instruments were the social network online, the questionnaire and the open response question. The data was analyzed by Percentage, Average, Standard Deviation, and Rating Scale.

The results showed that the experimental group was motivated in self-access learning. The data analysis pointed that the experimental group was very satisfied in using the social network online and they prefer using the social network online as an outside class activity. For this activity, the experimental group learned more knowledge themselves such as English idioms and foreign cultures. Besides, data descriptive analysis showed that 67 percent of students learned more English idioms. 58 percent of students got more knowledge concerning international cultures. 58 percent of students learned the third languages themselves such as Korean language and Japanese language

**Keywords:** -



## The Development of Water Quality Standards for Manufacturing Village: Case Study Pongchai Village Maemoh Sub-District, Maemoh District, Lampang Province

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### Abstract

The development of Water Quality Standards for Manufacturing Village: Case Study Pongchai Village Maemoh Subdistrict Maemoh District Lampang Province. This participatory action research has the objective to: 1 To analyzed the quality of untreated water and studied in physical chemistry and microbiology of the water, and studied the water production systems of Pongchai village. 2 To making the participation in the development of water quality. 3 To developing the water process. As this research studied by analyzed the untreated water quality in Maemoh Electric Power Plant's reservoir, by used the Standard methods for the Examination of Water and Wastewater (APHA AWWA and WEF, 1998). Then compared the untreated water quality in Maemoh Electric Power Plant's reservoir with the water and untreated water sources quality standards of Metropolitan Waterworks Authority.

This analysis was found the contamination with Coliform bacteria, Color values exceeds the standard value, and solids and total volume exceeding standards. These values are might be use only for consumed, should not drinking. To consumption this water should be filtered and boil before drinking. This research reported the water analysis result to the Electricity Generating Authority of Thailand, Maemoh local government, Royal nurse college of Lampang, Village master and Representatives from the Pongchai village. Moreover this research gave a chance to exchange of ideas for build understanding. As well as participate in the development of water quality. And develop guidelines for improved the production of water in the future.

**Keywords:** -



## Development of Spirulina sp. Cultivation for Raw Eating with Food Safety to Consumers

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### Abstract

The Spirulina sp. cultivation techniques were developed in order to increase the productivity and raw-eating consumer's safety.

The 10 farmers were interviewed about cultivating technique, problem and problem solving. The products were collected and analyzed for food components and bacterial contamination. The data were used to develop the cultivated building, equipments, materials, fertilizer formula, method of harvesting. The pilot cultivated building was designed and constructed. The Spirulina sp. were cultivated and collected to food safety analysis. Finally, the prototype designed and the cultivation process was introduced to public.

The result showed that most Spirulina sp. farming were indoor and cover with plastic roof. The cultivated container mostly made of 2-3 years using life time plastic the Thidar's fertilizer formula (Thidar, 2003) were used. The cultivating period was 7-14 days. The maximum production was 3.3 kg/1000 Liter. The harvesting techniques were siphon through harvesting net, filter net and water pump. The harvested Spirulina sp. were washed with water. We have found the problems which are the death of Spirulina sp. in high temperature at midday and the product depend on season. The air bubbles were blocked. The harvesting process took long-time and uses a lot of water. The collected data were used to design Spirulina sp. indoor concrete pond and paddle wheel for water circulation. The over-flow process was designed as harvesting technique. The washing machine also designs in order to develop the washing method. The modified Thidar's fertilizer ingredients (Thidar, 2003) produced 4 kg/1000 Liter. The production flow regularly all year. The indoor farming designed was introduced to public by exhibition. The results also showed that the production of Spirulina sp. from new technique was raw-eating safety.

**Keywords:** -