



Education On Making Luti Gendang And Innovation Of Luti Gendang Products At State Elementary School 011 Sekupang Batam

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Abstract

The Communities (PKM) activity aims to provide education on making luti gendang and innovation of luti gendang products to students of State Elementary School 011 Sekupang Batam. Luti gendang is a traditional food typical of the Riau Islands that has cultural value and economic potential. The activity was carried out through counseling methods, demonstrations, direct practice, and interactive discussions to 80 students in grades 4 and 5. The material provided included an introduction to traditional culinary, food safety, sanitation and hygiene, and culinary product innovation. The results of the activity showed an increase in students' knowledge about traditional culinary and the importance of healthy and safe food. In addition, students showed high enthusiasm in the practice of making luti gendang and product innovation. This activity is expected to increase awareness of the younger generation towards the preservation of local culinary culture and encourage creativity and healthy food consumption patterns from an early age.

Keywords: Luti Gendang, Community Service, Traditional Culinary, Product Innovation, Food Education

INTRODUCTION

Community service activities are one implementation of the Tri Dharma of Higher Education, which aims to make a real contribution to society through the transfer of knowledge, skills, and technology. In the culinary field, community service activities focus not only on cooking but also on developing creativity, preserving local culinary culture, and raising awareness of food safety and entrepreneurship from an early age. According to Rules No. 18 of 2012, describe that food is basic people need, and its fulfillment is a human right guaranteed by the 1945 Constitution. The state is obligated to ensure the consumption of safety, quality, and nutritious needs.

Safety, healthy, and quality food's education is crucial in the school scope, especially for children in the age range 7 and 12 years old, who are naturally prone to consuming junk food, whether it's snacks found in the school canteen or street vendor.





Nutritious food is the primary foundation for the growth and development of elementary school-aged children, as they require sufficient energy, protein, vitamins, and minerals to support their learning activities and physical development. Quoting the balanced nutrition theory from the Indonesian Ministry of Health in (Lukman et al., 2015) Food consumption must meet the principles of diversity, balance, and safety so that children can achieve optimal health status.

If we look at the meaning of food itself, it is a tradition, because initially food had a role in various rituals and traditional ceremonies and was made from generation to generation (Harsana et al., 2019) In a cultural context, traditional Indonesian food plays a crucial role as a source of nutrition and a symbol of local identity. Many traditional foods are based on natural ingredients such as tubers, nuts, fish, and nutrient-rich vegetables. For example, tempeh is a source of plant-based protein, or traditional cakes made from rice and coconut milk reflect local wisdom in the use of food resources. Food anthropology theory emphasizes that traditional cuisine not only fulfills biological needs but also conveys cultural heritage and forms community identity.

However, in elementary school environments, student snack consumption is often a challenge. A study by the Food and Drug Administration (BPOM) in (Ad et al., 2016) Studies show that some school snacks still contain harmful additives or do not meet hygiene standards. This has the potential to reduce children's daily nutritional quality and increase their risk of diseases such as diarrhea and obesity. The Health Belief Model explains that snack consumption habits are influenced by children's perceptions of taste, price, and availability, making nutrition education interventions and supervision of school canteens crucial.

On the other hand, Indonesia boasts a wealth of traditional culinary delights that can serve as both a healthy snack alternative and a means of cultural education. One example is Luti Gendang, a traditional Malay dish from the Riau Islands, consisting of fried bread filled with savory, spiced tuna. Luti Gendang not only provides nutritional value from its animal protein source but also reflects the cultural identity of coastal communities. According to (Rosidin, Odien;Riansi, 2021) Traditional culinary arts are not only about food, but also represent the entire cultural entity of a community. This is highly relevant to the theory of food as cultural identity.





Luti gendang is a traditional food from the Riau Islands, made from bread dough filled with shredded fish. This bread is made from wheat flour, milk, eggs, butter, and sugar, and is filled with shredded tuna fish seasoned with onions, chilies, and typical Malay spices. The bread is shaped into an oval shape to enhance its distinctive character, along with its delicious savory flavor (Widodo, 2023) This product has a distinctive Malay flavor and is a regional culinary icon with potential for further development. However, the existence of traditional foods currently faces challenges due to the increasing popularity of fast food and modern products, which are more popular among the younger generation.

Elementary school students are highly vulnerable to various health risks related to food and snack consumption. Efforts to provide healthy and nutritious snacks in elementary schools still face significant challenges. As children grow, they tend to choose foods that are appealing in terms of color, taste, and shape, without considering hygiene, safety, or nutritional content. This situation is exacerbated by the limited availability of healthy snacks in schools, as reflected in data showing that 73% of food poisoning cases in schools occur at the elementary school level. (Rakhmawati et al., 2017).

Food availability and safety are recognized as essential human rights and strategic issues in global public health. International attention to this aspect is growing as reports indicate that hundreds of millions of people worldwide suffer from illnesses caused by food poisoning. (Hamida & Zulaekah, 2012). School children are one of the groups most vulnerable to the effects of food poisoning. The snacks they consume are potentially contaminated with biological and chemical contaminants, which can pose both short-term and long-term health risks.(Rakhmawati et al., 2017).

Culinary product innovation is the creative process of developing new foods and beverages or modifying existing products with the aim of increasing added value, attractiveness, and competitiveness. This innovation encompasses not only taste but also aspects of raw materials, processing techniques, presentation, packaging, and cultural values, resulting in unique, nutritious, and sustainable products, while strengthening local culinary identity and opening up economic opportunities, tourism, and preserving traditions.

Culinary product innovation is the development of a food product through changes in form, taste, appearance, and presentation methods to increase





consumer appeal. According to (Kotler & Keller, 2016) Product innovation is a crucial strategy for maintaining product sustainability amidst market competition.

As a vocational education institution focusing on tourism and culinary arts, Batam Tourism Polytechnic has a moral and social responsibility to contribute to improving the quality of life of the community through community service programs. This activity provides a means for lecturers and students to transfer knowledge about nutritious food, food hygiene principles, and techniques for selecting and preparing healthy snacks. This education is expected to shape healthier consumption patterns in students while encouraging the school community to pay more attention to nutritional aspects in their daily lives. This service program was held on Monday, May 25, 2026, from 10:00 –11:30 WIB, involving a team consisting of three lecturers and two students of Batam Tourism Polytechnic, and received full support from the Community Service Center (PUSLITABMAS) of Batam Tourism Polytechnic.

This material covers healthy food ingredients, making drum-shaped products (luti gendang) and managing healthy and nutritious foods. Students also receive tips on selecting and sorting healthy and nutritious snacks.

COMMUNITY OVERVIEW

SD Negeri 011 Sekupang Batam was established on April 23, 2008, based on Establishment Decree No. Kpts.178/HKIV/2008. This school is under the auspices of the Ministry of Education and Culture of the Republic of Indonesia and the Batam City Government. On November 30, 2019.



Figure 1. Main Building of SD Negeri 011 Sekupang Batam ,May 2026.





SD Negeri 011 Sekupang received B accreditation through Accreditation Decree No. 1339/BAN-SM/SK/2019, confirming the quality of education provided in accordance with national standards.

This school is located on Jl. Gajah Mada, Taman Sari Hijau Housing Complex, Tiban Baru Village, Sekupang District, Batam City, Riau Islands Province. SD Negeri 011 Sekupang has a land area of 3,059 m², which is used to support learning activities, administration, and extracurricular activities.

In its learning activities, this school adheres to the national curriculum with the SD Merdeka model, which emphasizes competency-based learning, creativity, and student independence. Currently, SD Negeri 011 Sekupang has approximately 704 students, guided by 28 teachers with expertise in their respective fields.



Figure 2. One of the main buildings of SD Negeri 011 Batam, May 2026

The school's leadership is carried out by the Principal, Mimi Herawati, S.Pd., M.M., with the support of the responsible school administrator, Arofi Apriyanti Alhar. This leadership structure ensures the continuity of effective and regulatory-compliant educational governance.

Vision and Mission

Vision: To create an elementary school that excels in academic achievement, character, and cares for the environment.

Mission:

- To provide quality learning in accordance with the national curriculum.
- To develop students with noble character, creativity, and independence.





- To encourage the active participation of teachers, students, and the community in school development.
- To optimize infrastructure to support teaching and learning activities.
- Strategic Role

As an elementary school, SD Negeri 011 Sekupang plays a crucial role in building the foundation of knowledge, skills, and character in students in the Sekupang area. With B accreditation and the support of competent teaching staff, this school is expected to produce graduates who are ready to continue on to higher education and contribute to the surrounding community.

SD Negeri 011 Sekupang Batam has several strengths that support its role as a primary education institution, including B accreditation status, a large student population, competent teaching staff, and adequate infrastructure with a land area of 3,059 m². However, this school also faces several weaknesses, such as limited learning support facilities, minimal development of literacy and numeracy-based extracurricular programs, and reliance on the government curriculum without significant local innovation. On the other hand, there are significant opportunities available, including the implementation of the Independent Curriculum that provides space for creativity, support from local governments and the community, potential collaboration with vocational education institutions, and strengthening literacy, numeracy, and digitalization programs.

However, threats remain, such as changes in national education policy that require rapid adjustments, competition between schools in the Batam area, the demands of the digital era on adaptation of learning technology, and the risk of declining quality if facility improvements do not keep pace with student growth. Therefore, SD Negeri 011 Sekupang needs to optimize its strengths and opportunities, while also anticipating weaknesses and threats, so that it can continue to play a strategic role in improving the quality of primary education in Batam City.

METHODOLOGY

This Community Service (PKM) activity is carried out as a form of implementation of the Tri Dharma of Higher Education. It aims to increase participants' knowledge and understanding of the principles of balanced nutrition, nutritious food management, nutrient content in food, and the importance of





choosing healthy foods and snacks. Through this activity, it is hoped that elementary school students will have a more comprehensive understanding of the criteria for safe, healthy, and nutritious food, enabling them to adopt better eating habits in their daily lives.



Figure 3. Socialization Activities ,May 2026

The activity is supported by lecturers from the Culinary Management Study Program who act as resource persons and facilitators. With their expertise in food science, nutrition, and culinary arts, the speakers deliver material systematically through an educational and interactive approach to enhance participants' understanding of the importance of adopting healthy eating habits from an early age.

The Community Service program began with direct presentations using a lecture method combined with interactive discussion sessions. The material was delivered by the implementation team, covering various topics, including nutritional content in food, the concept of safe food for consumption, and examples of the implementation of the Free Nutritious Meal Program (MBG) in school settings. This face-to-face learning approach aligns with the principles of adult learning proposed by (Vutha, 2024) which states that the learning process is more effective when the material is delivered directly, is relevant to the participants' needs, and provides opportunities for discussion and questions.





Based on the evaluation of the program's implementation, several factors were identified that both supported and hindered the success of the Community Service program. These factors will serve as evaluation material to improve the quality of similar activities in the future.

1. Supporting Factors

- a. High enthusiasm and active participation of teachers and other educational staff during the program. Their involvement, both in terms of time and participation in each session, positively contributed to increasing understanding of the implementation of the Free Nutritious Meal Program (MBG) in the canteen of SD Negeri 011 Sekupang.
- b. There was full commitment and support from the school in facilitating all activities. Furthermore, the school also expressed interest in continuing the program through follow-up activities that covered the material in greater depth, particularly regarding the provision of healthy food and snacks.
- c. The students' high level of interest and enthusiasm during the outreach and education activities. Students' active participation in the interactive learning process contributed to the effectiveness of the material delivery, making it easier to understand and apply in everyday life.

2. Inhibiting Factors

- a. Limited time allocation prevented the comprehensive and in-depth delivery of material on food safety and healthy eating.
- b. Differences in understanding levels among students presented a challenge in delivering the material. Some students required more time to grasp the information presented, thus preventing optimal effectiveness in delivering the material to all participants.

Based on data from SD Negeri 011 Sekupang, Batam, the nutritional needs of students are a matter of concern. Several field observations revealed that many students still don't finish the food provided due to dislike. Therefore, ongoing education and outreach are needed, not only for students but also for teachers, and especially for food handlers—servants, vendors, and sellers—in the canteens within SD Negeri 011 Sekupang.





Figure 4. Teachers from SDN 011 and lecturer take a photo together, 2026

SUSTAINABLE RESULT AND POTENSIAL

Community Service (PkM) is one of the Tri Dharma Perguruan Tinggi (Three Pillars of Higher Education) obligations, mandatory for all academics, in addition to educational and research activities. This activity aims to improve the knowledge and skills of teachers, students, and school cafeteria managers regarding the importance of choosing healthy food and snacks through an interactive and engaging educational approach. The activity took place on Monday, May 25, 2026, from 10:00–11:30 a.m.

This Community Service program was implemented by a team consisting of three lecturers and two students from the Culinary Management Study Program at Batam Tourism Polytechnic, with support from the Center for Research, Community Service, and Quality Assurance (PUSLITABMAS) of Batam Tourism Polytechnic.

During the planning stage, the target number of participants was 80. All targets were met, resulting in a 100% participant attendance rate. This achievement indicates that the activity proceeded according to plan and received an excellent response from participants. Overall, the success indicator, based on participant attendance, can be categorized as very satisfactory.





This activity was designed to broaden participants' knowledge about healthy and nutritious food alternatives without compromising on adequate nutritional intake. However, the activity was held in an open area in relatively hot weather, making it difficult to deliver some material in-depth. Despite these challenges, the overall planned main material was successfully delivered to participants in accordance with the activity's objectives.

Evaluation results indicated that students' understanding of the material varied. Some students still required further guidance as they were at an early stage in grasping the concepts presented. Furthermore, the limited duration of the activity and differences in learning abilities among participants also impacted the effectiveness of the overall material delivery.

CONCLUSION

The implementation of an educational program on healthy and nutritious food for elementary school students through Community Service activities demonstrated positive results. This program increased participants' knowledge and understanding of the importance of consuming healthy and nutritious foods. Furthermore, students demonstrated high enthusiasm during the activity and expressed interest in learning about and choosing healthier foods. However, not all of the material was fully understood, as some participants were still at a stage of cognitive development that required a simpler and more gradual learning approach.

The results of the activity indicate that this educational program successfully increased students' understanding of the characteristics of safe, healthy, and quality food and snacks, while also providing insight into the risks associated with consuming unhygienic food. Furthermore, participants gained basic knowledge and initial skills in preparing traditional regional foods, paying attention to aspects of creativity, innovation, cleanliness, and sanitation throughout the food processing process.

This activity also contributed to the preservation of traditional culinary arts as part of local cultural heritage for the younger generation. On the other hand, this program succeeded in raising students' awareness of the importance of adopting healthier consumption patterns, such as choosing foods with balanced nutritional value, limiting consumption of snacks with high sugar and flavoring content, and





getting into the habit of washing hands before eating. These changes were reflected in the participants' increasing positive attitudes towards choosing healthier foods and snacks, which were supported by evaluation results through pre- and post-tests that showed an increase in knowledge scores after participating in the program.

SUGGESTION

1. Further guidance for students and teachers is needed so that the knowledge gained is not only temporary, but can also be internalized and applied consistently in everyday life.
2. Schools can incorporate traditional culinary activities into extracurricular activities.
3. Further support from various parties is needed to develop local culinary culture education.

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