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SUNDANESE PERCEPTIONS AND PREFERENCES TOWARDS LALABAN MENU: AN ETHNOSCIENCE STUDY IN LEARNING

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ABSTRACT

Lalapan, a typical Sundanese side dish, has cultural significance and high nutritional value for its people. The purpose of the study was to gain insight into how Sundanese people perceive and like the lalaban menu, the traditional menu in their culture as well as their preferences in terms of taste and presentation. This study, reveals the meaning and cultural values inherent in the lalaban menu in Sundanese culture, as well as identifying specific elements of the lalaban menu by scientific principles. This study will also analyze the needs of students in science learning in junior high schools and use these findings as a basis for designing ethnoscience-based learning models that incorporate Sundanese local wisdom around the lalaban menu. This research is expected to help improve understanding of the meaning and value of Balaban culture in Sundanese culture. The research method is an explorative survey with observation techniques through the dissemination of guestionnaires with an ethnoscientific approach. Data were collected through observation of 350 participants from 10 cities/districts. The data obtained were analyzed descriptively. The results showed that Balaban was already known to the public, lalapan has a taboo that people believe as a myth. However, there is a scientific explanation from the perspective of ethnoscience, fresh vegetables are important and consumed not just for cultural heritage but there are benefits that can be obtained, types of fruits, vegetables, or plants that are used as potential fresh vegetables that can be consumed, nutritional studies of fresh vegetables, characteristics or inventory of plants used as fresh vegetables, have symbolic meaning as balance, simplicity, and closeness to nature. Other perceptions of tehadap fresh vegetables according to surveys that have been conducted variously. Preference for fresh vegetables is influenced by taste, texture, and nutritional value. In conclusion, the perception and preference of lalaban are not only based on taste and texture but also influenced by cultural significance and nutritional value.

Keywords: ethnoscience, fresh vegetables, Sundanese people, nutrition.

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1. INTRODUCTION

The Lalapan Menu is an integral part of the traditional culinary Sundanese. The term "lalapan" is used for native vegetables eaten raw, especially by Sundanese in West Java (Hendariningrum, 2018; Purba et al., 2013). Food crops that are processed into fresh vegetables or "fresh vegetables" can be certain wild plants that are eaten by humans or that are taken intentionally for cultivation (Guerrero, 2016). Many people eat fresh vegetables with rice and other side dishes. Fresh vegetables and salads are similar, with some types raw or fresh (Kodir,2022), while others must be cooked before eating. A study conducted by Hendariningrum (2018) shows that fresh vegetables are an important part of the Sundanese daily diet. If the main course is not available, fresh vegetables are made by adding a little broth. The traditions and customs of the Sundanese people, especially those who live in indigenous villages, or rural areas, have long followed the presentation of food like this. The study of Sundanese perceptions and preferences towards fresh vegetables is very important in understanding how these foods remain relevant and can be preserved in today's Sundanese Society.



Figure 1. Map of the Kingdom of Sunda (source: Gajah Mada Segan on the Kingdom of Sunda-Historia)

In Figure 1. This is a map of the distribution of Sundanese Society. In their daily lives, most Sundanese people in West Java utilize plants as one of their ways of interacting with nature. The majority of West Java stretches or the large variety of vegetables and fruits supports the interaction of society and nature. This plant is used to be eaten as a fresh vegetables. Fresh vegetables are parts of plants that are eaten raw, either boiled or steamed, as well as seeds, fruits, flowers, roots, stems, and other parts. These vegetables are called lalapan and are usually eaten with sambal Fresh vegetables are often used as food ingredients because of their important function for human health, especially if vegetables are a source of plant nutrients and vitamins (C, A, B1, B6, B9, and E), minerals, fiber, and chemicals. fruits. Fresh vegetables contain chemicals that act as antioxidants and help reduce long-term disease and stop free radicals, which can prevent tumor growth. Various kinds of plants are used by Sundanese people as salads. Plants spread in every region, especially West Java. As observed by Cahyanto et al. (2018), 50 types of plants used by the Sundanese people in Subang Regency, are grouped into 19 tribes. Then, the results of Cita (2020) research show that people in Nyangkewok Village, Sukabumi Regency, consume various types of lalap plants consisting of 101 plant species, most of which are dominated by plants with the Cucurbitaceae tribe. Based on the type of plants used in both areas, there are some similarities with some types of plants used in both areas,

namely the number of 27 types of vegetables is the same between the results of research by Cahyanto et al. (2018) and Cita (2020). Vegetables, in Sundanese tradition, are usually consumed as" lalap "or"lalapan". Lalapan is a traditional way of consuming vegetables, which are usually eaten raw or simply boiled/steamed, with a dressing known as "sambal". Fresh vegetables can be easily found in traditional areas or semi-modern markets. Sundanese food stalls and restaurants also provide fresh vegetables as a companion to their main menu.



Figure 2. Raw fresh vegetables served with sambal (https://www.goodnewsfromindonesia.id)

There are so many types of vegetables consumed as fresh vegetables seen in Figure 2, but we can divide them by the part used to make fresh vegetables. Some of these vegetables come from the leaves of plants such as lettuce (Lactuca sativa), basil (Ocimum americanum), kinkier (Cosmos caudatus), samples/cassava leaves (Manihot utilissima), and other plants whose fruit parts are used as fresh vegetables such as Green Eggplant (Solanum melongena), kacipir (Psophocarpus tetragonolobus), cucumber (Cucumis sativus), and so on. Furthermore, similar studies were conducted in Kampung Gunung Malang and Kampung Leuweung Kolot, Kampung Leuweung Kolot Regency, and Bogor Regency (Amrinanto et al., 2019). A study conducted by Amrinanto et al. (2019) found that there are 21 types of plants in both villages that are used as salads. Cucumber (Cucumis sativus), long bean (Vigna unquiculata), manioc (Manihot esculenta), cabbage (Brassica oleracea), Poh-Mohan (Pilea melastomoides), and petai are the most consumed vegetables. Children and adults in these two villages consume a lot of fresh vegetables. As a result, the results of examining blood samples from respondents showed that there is a lot of carotene, which is an important component to support and protect human health. Carotene is a provitamin A that can be converted in the body into vitamin A after undergoing a metabolic process (Harahap et al, 2020). There are currently more than 300 known carotenoids, the most common of which are found in tall plants only a few, most likely beta carotene (Harborne, 1996). The chemical structure of beta carotene is in Figure 3.

Figure 3. Structure of β-carotene (Robinson, 1995)

Figure 3 shows the chemical structure of β -carotene. Beta carotene has the highest activity in comparison with the β -carotene and the β -carotene seen from the extension of the conjugation chain so that it has a longer polar structure (Prawirokusumo,1991). So, this is the reason why it is important to consume vegetables that contain β -carotene in both children and adults. This need can be met by consuming fresh vegetables.

With the existence of foreign culture through drama/film, social media that is easily accessible, or current trends that indirectly affect the consumption of Community Food as a form of local wisdom. Food is not only food to fill the stomach, but also a part of local wisdom. Local wisdom is the knowledge and traditions developed by local people to adapt to their environment and culture. Food as local wisdom is an example of this knowledge and tradition in utilizing natural and cultural resources to make delicious, nutritious, and meaningful dishes (Haryanto, 2013). Studying food as local wisdom in education has several important benefits (Kemendikbud, 2013), among others:

- 1. Preserving culture and traditions: studying traditional foods helps students to understand and appreciate the culture and traditions of their ancestors.
- 2. Raising awareness about nutritional value: traditional foods are generally rich in nutrients and natural ingredients. Studying traditional foods helps students to understand the importance of nutrition and healthy eating.
- 3. Increase the sense of love for the homeland: studying traditional foods helps students to understand the diversity of cultures and natural wealth of Indonesia, and cultivate a sense of love for the homeland.
- 4. Develop skills: studying traditional food can help students develop cooking, entrepreneurship, and teamwork skills.

Local wisdom in the frame of ethnoscience can be integrated into the field of Education. Ethnoscience is a field of study within anthropology that studies **the knowledge** and classification systems that a particular culture has. In other words, ethnoscience tries to understand how local people understand and categorize the world around them.

2. RESEARCH METHODS

Research through surveys with a Cross-sectional Survey design (data collected at one point in time / at a point in time). Survey research, according to Creswell (2014), is a type of research that uses samples to collect information to explain different aspects of the population. However, according to Gay (1992), "a survey is an attempt to collect data from members of a population to determine the current status of the population by consideration of one or more variables."Various sampling techniques are characteristic of survey research. According to Jogiyanto (2014), there are two types of sampling: non-probability sampling and probability sampling. With the sample probability approach,

everyone has a different chance of being sampled, while with the sample probability approach, everyone has a chance of being sampled. Thus, the researcher can estimate how likely the findings of the sample will differ from the findings of the population.

The Data was netted using an open questionnaire distributed online through Google Forms. The purpose of Google Forms is to make it easier to collect data. One of the goals of the development of technology is to facilitate the implementation of Education (Lestari & Putra, 2020). Questions and statements are open and closed. The number of questions and statements in the questionnaire were created and distributed to the participants. The filling of the questionnaire is not required to be answered or responded to by participants so from 17 questions or statements each answer does not always amount to 350 people, because some participants do not fill out the questionnaire. The questions or statements given to responding respondents are as follows:

Table 1. Questions And Statements

Question	Statement
Gender	
Age of respondent	
Origin province and region of origin	From confidence levels 1-5 (1 very unsure,
Do you know the term fresh vegetables and whether they are often consumed	2= not sure,3= Normal, 4= sure, 5= very sure) fresh vegetables consumed mainly
Of the races presented here which one do you	raw are served clean, safe, and hygienic
have / often consume (may choose more than	
one)	
Name one type of fresh vegetables and their	Knowing fresh vegetables as an important
benefits that you believe	
How to get the ball, where the ball is	 local culture inserted in learning (education)
The importance of consuming fresh vegetables	(Education)

Table 1 shows questions/statements that vary but in one form are not all filled, because in the process of submission is not required to fill all. The charging range is approximately 2 weeks from March 2, 2024, until it closes on March 16, 2024. Limited or reshare to fill in the form so that participants in the network or respond to as many as 350 people.

3. RESULTS AND DISCUSSION

Some leaves used as fresh vegetables contain antioxidants (Latif, 2006). Wahyuni in his dissertation mentioned that **antioxidants** are molecules that serve to protect the organism from damage caused by free radicals. Diabetes mellitus is a non-communicable disease associated with lifestyle and increased production of free radicals characterized by a condition of **hyperglycemia**. Inhibiting the activity of the enzyme α - amylase is one of the effective methods of controlling blood glucose. Phytochemical components have the potential as inhibitors of the enzyme α - amylase. Blood glucose control can be done by maintaining a diet such as eating vegetables that can affect blood glucose concentration effectively. Fresh vegetables are various types of vegetables that are consumed fresh. Gandaria leaves (Bouea macrophylla), basil (Ocimum africanum), pohpohan (Pilea melastomoides), and lettuce (Lactuca sativa) are fresh leaves that contain bioactive components and show antihyperglycemic activity. The results of data collection through questionnaires addressed to the public who received a broadcast link in the form of URL

https://forms.gle/HThxsDqUDN7VnhDn8. The Access has been closed in anticipation of further charging. More detailed information was obtained data as follows:

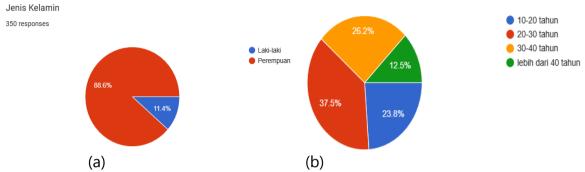


Figure 4. a. Gender, b. Age Range

Figure 4 is one of the characteristics of the respondents who fill out this survey questionnaire with a predominance of filling or female respondents, about 88.6% with a total of 310 people are women and men as many as 11, 4% about 40 people. The age range of respondents who dominate is in the range of 20-30 years. This age range makes it easy to access widely spread links.

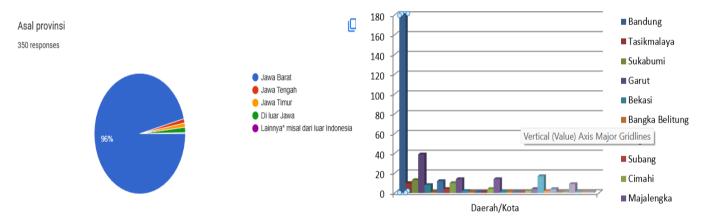


Figure 5. Origin of provinces and regions of respondents

From the graph in Figure 5. The majority of respondents came from West Java and came from the city/ district. Bandung. The number of respondents came from the city/ district of Bandung because of the city of origin of the researcher so the spread of questionnaires with limited time in the area of the researcher came from. The question of knowing the term fresh vegetables and whether they are often consumed, out of a total of 350 people, only one person does not know what fresh vegetables are.

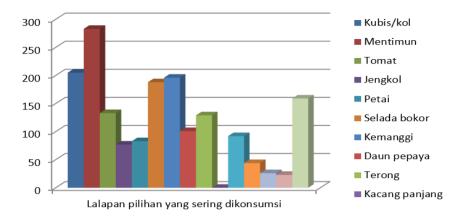


Figure 6. Frequently consumed vegetables

Figure 6 is a type of lalpan widely consumed by respondents, sebearnya in Sundanese more types of vegetables/ fruits used as fresh vegetables as part of the culture. Health is linked to culture. The culture that later became a hereditary tradition, the tradition of eating fresh vegetables makes Sundanese known to have a beautiful face and appearance nan shapely. Sundanese people believe that their beauty comes from their ancestors who were also members of the Sunda Kingdom (Hendariningrum, 2018). It is believed that the Princesses of the Sunda Palace are still beautiful to this day. Apart from heredity, many people do not know that Sundanese people also have beauty secrets. The habit of eating fresh vegetables that Sundanese people can help the skin become smoother and slimmer. Consumption of vegetables every day can guarantee the input of nutrients and vitamins that are good for the body and skin. According to Unus Suriawiria (2011), of about 80 types of food consumed by the Sundanese, 65% of which comes from the types of plants/ plants, then the rest of the fish and meat. Unus Suriawiria (1987) also noted that Sundanese people know about 59 types of shoots / young leaves, 18 types of flowers. 20 types of young fruit, as well as a dozen grains that can be used as a salad.

Table 2. Society's perception of the types and properties of fresh vegetables

Types Of Fresh Vegetables	Efficacy (public perception)	Types Of Fresh Vegetables	Efficacy (public perception)
Basil	prevent cancer	Pete	contains vitamin A
	refreshing breathing		maintain blood sugar balance
	controlling glucose levels		high in protein
	preventing Thrush	_	memory enhancer
	prevent body odor	_	cancer prevention
	prevent the risk of heart	Eggplant	cancer prevention
	disease		
	maintain eye health	_	maintain heart health
Tomato	hydrates the skin		as vitality
	prevent heart disease	_	launch digestion
	maintaining immunity	_	maintain blood sugar levels
	healthy lungs	_	improves bone health
	caring for teeth and gums	Salada	maintain eye health
	antioxidants	_	adding fiber
	as vitamin C	_	launch digestion

Types Of Fresh Vegetables	Efficacy (public perception)	Types Of Fresh Vegetables	Efficacy (public perception)
	prevent cancer		prevent cancer
	coping with inflammation		hydrates the skin
Cabbage	contains many vitamins		maintain the body's immune system
	launch digestion	Broccoli	increase muscle mass
	hydrates the skin		lose weight
	maintain heart health		
	coping with inflammation		
	maintain bone health		
Jengkol	antioxidants		
	cancer prevention		
	enhance immunity		

Table 2 shows that the public perception of fresh vegetables consumed has health benefits. A person's environment, both physical and social, can affect his behavior, one of the many factors that affect his health. One of the ingredients of fresh vegetables is vitamins. Vitamin is an organic molecule that is needed by the body for metabolic processes and maintaining health. Vitamins cannot be made by the human body in sufficient quantities therefore they must be obtained from outside the food or vitamin preparations such as multivitamins consumed (Winarno, 1986). In the same way as the Sundanese people in the past and today in their social practices to maintain health. Many benefits are obtained from consuming fresh vegetables, especially for health. The culture of eating fresh vegetables Sundanese has existed since the 10th century AD and is referred to in the inscription Taji 901 ad. This was revealed by a historical researcher at the Faculty of Historical Sciences, Padjadjaran University (Unpad) Fadly Rahman (2023). Fadly Rahman said, that in the Taii inscription in 901, Masehi called a dish or food name kuluban Sunda which means lalap seized. According to Fadly (2018), studying the culture and history of fresh vegetables is an effort to find out the traces of Sundanese cuisine in the story and image of taste. The Taji inscription 901 M, contains a list of dishes that are often served at large events, including 57 sacks of rice, six buffaloes, and 100 chickens (Hendariningrum, 2018). Lalapan, as part of Sundanese culture, has a high ethnoscientific value. Studying fresh vegetables from an ethnoscientific point of view can help us understand the knowledge, beliefs, and cultural values of the Sundanese people.

Table 3. Taboo / Myth		
Taboo/myth	during menstruation should not consume cucumbers	
	girls do not consume too much jengkol	
	do not consume too much cucumber because it causes vaginal discharge	
	eating too much sugar will cause headaches	
	do not eat sweets after consuming jengkol	
	pregnant women should not eat raw vegetables	
	cabbage will cause soreness	
	cassava leaves can cause hypertension	

can lead to increased sexual desire
don't eat meat because you're scared
pregnant women do not eat jengkol because it will cause amniotic fluid smell jengkol
elderly people should not eat jengkol because it causes illness
pregnant women do not consume raw toge because it will cause miscarriage
eating lunch will make us avoid mosquito bites
fried cabbage will cause cancer
pregnant women are prohibited from consuming eggplant

Figure 3 shows that there is a myth associated with consuming certain types of fresh vegetables, although actually from the results of the questionnaire, many also answered apart from the benefits of nutrition and health, people tend not to know or even less believe the myth of what is consumed. Usually, this myth can be obtained from the influence of hereditary culture. Grandchildren of Sundanese people will learn the tradition of eating fresh vegetables as something of their culture. The next generation of Sundanese will learn whether their eating with fresh vegetables tradition is accepting competence in that culture as its own. According to Samovar et al (2014) often a person gets a lot of informal learning that is sometimes difficult to recognize and usually occurs through interaction, observation, and imitation. Informal learning is certainly strongly supported by the surrounding environment and experience. Sundanese people are known as the majority of its population who consume plants as fresh vegetables (also vegetables and fruits) in raw condition fresh vegetable consumption in the Sundanese community has been the second lowest of all provinces in Indonesia, which is only around 58% of the recommended consumption (Raharto et al, 2008). A solution that can be done even though it cannot be guaranteed to improve because it can only be proven by research is to integrate fresh vegetable knowledge into biodiversity learning materials in schools.

Based on the survey results fresh vegetables in question can be consumed in several ways, generally consumed raw but mixed with chili sauce. Sundanese people who have a culture of eating fresh vegetables, namely raw food ingredients, will be better if they have the awareness to consume fresh vegetables with organic food ingredients. Sundanese diet can be an example of other communities. Lifestyles to be healthier is certainly necessary synergy of several parties, namely the community, government, and interest groups to foster awareness of healthy living back to nature by re-consuming organic foods. Another way to consume fresh vegetables according to people's preferences is by sauteed, diablo, disemur, durable, boiled, baked, etc. The habits of eating fresh vegetables in Sundanese society and modern eating habits are similar. Appetizers, appetizers that usually consist of raw vegetables, are known in modern eating traditions. Raw food appetizer or salads comes with dressings or seasonings, such as fresh vegetables and chili sauce. In other parts of Indonesia, people also eat gado-gado, karedok, and lotek, which are all made from vegetables and herbs. The public knows from some media impressions that this food is also known to have good health effects. Fresh vegetables are believed to make the skin smooth and slimming in addition to beneficial to health. Therefore, people consume a lot of vegetables.

4. CONCLUSION

Preference for fresh vegetables is influenced by taste, texture, and nutritional value. In conclusion, the perception and preference of lalaban are not only based on taste and texture but also influenced by cultural significance and nutritional value. In Sundanese tradition, vegetables are commonly consumed as" lalap "or"lalapan". The importance of consuming fresh vegetables is not just to preserve the culture but also the body's needs and the importance of consuming fresh vegetables because the content in some types of fresh vegetables, for example, contains a lot of beta-carotene and vitamins that are needed by the human body. Some fresh vegetables are cultivated and some are wild plants. Lalapan, as part of Sundanese culture, has a high ethnoscientific value. Studving fresh vegetables from an ethnoscientific point of view can help us understand the knowledge, beliefs, and cultural values of the Sundanese people. This is important to preserve Sundanese culture and increase public awareness about the richness of Indonesian culture which should also be integrated in learning in the field of Education. Learning can be integrated with cultural values so that learners are close to things that are easy to get according to their respective regions. This integration can be related to the material of biodiversity so that when taking the closest example it is a biological type that is close to the community and can be consumed and important to enjoy.

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