

The Literacy of Elementary School Students on Food and Environmental Sustainability Values in Local Wisdom

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ABSTRAK

Rendahnya kesadaran generasi muda terhadap nilai-nilai keberlanjutan pangan dan lingkungan menjadi tantangan serius dalam upaya menjaga kelestarian budaya dan ekosistem di Indonesia. Penelitian ini bertujuan untuk mendeskripsikan tingkat literasi siswa mengenai nilai keberlanjutan pangan dan lingkungan yang terkandung dalam kearifan lokal mereka. Penelitian ini melibatkan 252 siswa kelas 6 sebagai partisipan. Data dikumpulkan melalui angket dan wawancara untuk mengukur pemahaman siswa terhadap nilai keberlanjutan pangan dalam cerita rakyat, seperti asal-usul sayur-sayuran dan jagung, serta nilai keberlanjutan lingkungan dalam upacara adat, seperti upacara bersih desa dan pelestarian sumber air. Data dianalisis menggunakan pendekatan kuantitatif dan kualitatif untuk mendapatkan gambaran menyeluruh terkait literasi siswa. Hasil penelitian menunjukkan bahwa mayoritas siswa memiliki literasi yang lebih positif terhadap nilai keberlanjutan lingkungan dalam upacara adat dibandingkan dengan nilai keberlanjutan pangan dalam cerita rakyat. Siswa lebih mendukung pemeliharaan kebersihan lingkungan dan pelestarian sumber air. Sebaliknya, literasi siswa terhadap nilai keberlanjutan pangan, khususnya terkait jagung, cenderung rendah. Faktor utama yang memengaruhi rendahnya literasi tersebut meliputi minimnya akses siswa terhadap cerita rakyat, pandangan negatif terhadap makanan berbahan dasar jagung yang dianggap sebagai "makanan setan" karena digunakan dalam upacara adat, serta stigma sosial ekonomi terhadap nasi jagung. Simpulan dari penelitian ini adalah bahwa literasi siswa tentang nilai keberlanjutan yang terkandung dalam kearifan lokal belum merata.

ABSTRACT

The low awareness among the younger generation regarding the values of food and environmental sustainability poses a significant challenge in preserving cultural heritage and ecosystems in Indonesia. This study aims to describe the level of students' literacy on food and environmental sustainability values embedded in their local wisdom. The study involved 252 sixth-grade students as participants. Data were collected through surveys and interviews to assess the students' understanding of food sustainability values in folktales, such as the origins of vegetables and corn, and environmental sustainability values in traditional ceremonies, such as the village clean-up ceremony and water source conservation. The data were analyzed using both quantitative and qualitative approaches to provide a comprehensive understanding of the students' literacy. The findings revealed that the majority of students showed more positive literacy regarding environmental sustainability values in traditional ceremonies compared to food sustainability values in folktales. Students were more supportive of environmental cleanliness and the preservation of water sources. On the other hand, students' literacy regarding food sustainability values, particularly those related to corn, was relatively low. Key factors influencing this low literacy included limited access to folktales, negative perceptions of corn-based foods (which are associated with "demonic foods" in traditional ceremonies), and socio-economic stigma towards corn rice. The conclusion of this study is that students' literacy on sustainability values embedded in local wisdom is not evenly distributed.

1. INTRODUCTION

Indonesia is a country rich in local wisdom. As a country with more than 1,300 ethnic groups and regional languages, Indonesia has unique cultural diversity and traditional knowledge. This local wisdom covers various aspects of life, such as agriculture (Murti & Hadi, 2017), marine resource management (Sulistiyono, 2018), forest medicine (Kartikasari, K., & Utami, 2019; Syah, F., & Rahayu, 2016), natural resource management (Rahayu, 2020), arts and culture (Utomo, et al., 2016), and religion (Wati, Sumarwati, dan Saddhono, 2019). This knowledge was acquired by ancestors through centuries of experience and transmitted orally from generation to generation, making it an integral part of the cultural identity and survival of the community that owns it. Therefore, local wisdom over a long period of time becomes a cultural reflection for society, so it is not instantaneous (Padur, et al., 2017). Local wisdom is realized in daily living culture such as folklore, myths, traditional ceremonies or honorary rituals, forms of residence (houses), language and cultural arts, as well as in other beautiful "locality" life arrangements (Indrawati & Purbani, 2019). Apart from that, local wisdom is also manifested in ideas or values, local views that are wise, full of wisdom, have good values that are embedded and followed and implemented by all members of the community (Nugraha et al., 2017; Padur et al., 2017). Along with the times, modernization and social change, the implementation and values of local wisdom are starting to be threatened with sustainability. This can be linked to the findings in a journal article that the adoption of modern values and lifestyles has led to a reduction in indigenous communities of local wisdom practices in Indonesia (Rochman et al., 2017; Sutikno, 2019). The researcher also highlighted the importance of efforts to conserve and revitalize local wisdom to maintain cultural identity and maintain environmental diversity.

As an agricultural country, Indonesia's local wisdom has a long history in the agricultural sector. In this context, there are two key values in Indonesian wisdom, namely food security and environmental protection. The high dependence on the agricultural sector illustrates the importance of local wisdom which must be passed down from generation to generation. However, the last few decades have shown that the younger generation in Indonesia is increasingly ignoring these valuable values. The value of preserving the environment and food, inherited from ancestors, is being eroded by social changes, modern lifestyles, and a lack of awareness of the importance of nature conservation and food sustainability. This phenomenon was explained that the young generation in Indonesia tends to be less interested and involved in environmental and food conservation efforts (Nurhadi, 2021; Rizkiwati et al., 2022). Several causal factors include increasing urbanization, rapid modernization, and technological advances that shape their outlook on life. In addition, the young generation in Indonesia tends to be less concerned and less active in environmental and food conservation efforts. (Pratiwi, R., Setiawan, A., & Sari, 2022; Rohmanurmeta & Dewi, 2019). This research involves surveys and interviews with young age groups from various regions in Indonesia and identifies several factors that contribute to this phenomenon. One of the important factors found is changes in thought patterns and behavior influenced by technological developments and modern lifestyles.

Conditions such as those presented in above represent a serious challenge for environmental sustainability and food security in Indonesia. The younger generation has great potential to bring about positive change if they realize the importance of preserving the environment and food in realizing a sustainable future (Budiwibowo, 2016; Reza et al., 2022). In fact, this has been done by our ancestors through various legacies in the form of local wisdom, especially those relating to food and environmental protection. The importance of local wisdom in environmental protection and food security must continue to be emphasized and integrated into government policy and public awareness. Education regarding the importance of natural balance, sustainable agricultural practices, and resource conservation efforts must be encouraged to encourage active participation from society, government, and the private sector in protecting the country's environment and food security. In this way, Indonesia can utilize its natural potential in a sustainable manner and make a positive contribution in facing global challenges related to the environment and food security. The development of a learning model based on local wisdom (Hidayati et al., 2020; Sinthya & Ramadan, 2021; Sumardjoko & Musyiam, 2018). The biggest reason put forward is so that students know, are familiar with and are able to preserve national culture. It is important to revive Indonesian character so that learning not only leads to mastery of technology but also leads to the development of local Indonesian potential and character (Hanafie Das et al., 2022; Setiawan et al., 2017).

Literacy in environmental and food preservation values among primary school students in rural areas is a research topic that is new or novel. This problem arises because of the need to understand and overcome the challenges faced by primary school students in rural areas related to understanding the importance of preserving the environment and understanding food security, included in Tawangmangu District, Karanganyar Regency. Local wisdom regarding food and environmental sustainability in Tawangmangu is presented in the form of folklore, traditional ceremonies, prohibitions, and sacred places. There are two folk tales whose events are believed to have really happened. First, a folktale entitled *Narotama* or the origin of the corn plant. It is said that in ancient times, the warlord King Airlangga named

Narotama stopped in Nglurah Village and then decided to settle in that village. Narotama saw that the residents lacked food because their rice farms always failed to harvest so many died of hunger. Narotama invites residents to replace rice with corn because it is more suitable for areas with high rainfall and sharp land slopes. Narotama also taught how to process corn into a staple food, namely corn rice. Since then, residents no longer lack food. In his old age, Narotama was nicknamed Kyai Menggung.

The residence which is also his tomb is called the Menggung Site. The place, which is a hill with large trees that are hundreds of years old, is considered a sacred place and residents are prohibited from cutting down trees there. Second, the folktale entitled *King Baka and Putut Tetuka* or the origin of vegetables. It is said that there was a king named King Baka who was a giant and a man-eater. In turn, residents have to give up their family members to be their food. The king's cruelty added to the suffering of the people who had been starving because their rice crops always failed to harvest. Meanwhile, in a cave on the slopes of Mount Lawu, lived a hermit named Putut Tetuka. He volunteered himself to be eaten by King Baka to replace an old widow. The king swallowed Putut Tetuka whole, but he was able to jump out and a fight broke out. Finally, King Baka was defeated. Before he died, King Baka realized his cruelty and to atone for his sins, he said, "O God, I have made the people suffer. As atonement for sins, I ask you to transform this body into crops so that my people will no longer lack food." Immediately, King Baka's body parts changed into various agricultural products such as bananas, cassava, potatoes, and others. Before heading to the cave where he was imprisoned, Putut Tetuka advised the residents to plant vegetables and secondary crops and forbid planting rice. Putut Tetuka's meditation place, called Pringgodani Cave, is a sacred place and residents are prohibited from cutting down trees there.

There are three traditional ceremonies containing environmental preservation values in Tawangmangu. First, the Dukutan village clean-up ceremony which is held in Nglurah Village once every seven months, precisely on Tuesday *Kliwon*, *Wuku Dukut* to commemorate Narotama's wedding day. The core procession is as follows (1) all residents clean the village environment and the Menggung Site; (2) collecting offerings made from corn and secondary crops in the village pendapa and praying together; (3) a procession around the village carrying offerings of corn and secondary crops while cheering accompanied by lion dance attractions towards the Menggung Site; (4) placing the offerings and accessories, then reading the prayer; (5) carrying out "war" brawls by throwing corn rice at each other which then ends with mutual apologies. This procession commemorates the enmity between groups of residents who were willing to plant corn and those who refused. Second, the traditional Mondosiyo village cleaned ceremony which was held in Pancot, Kalisoro and Blumbang villages. The ceremony is held every seven months to commemorate the death of King Baka. The main procession of the ceremony is as follows (1) all residents clean the village environment and Pringgodani Cave; (2) each family collects offerings in the village pendapa, then prays accompanied by *gamelan* music; (3) slaughtering *kendit* goats, 'goats with black hair and white around the stomach', then cooking them to eat together; (4) washing the black stone that was the medium for King Baka's death with *badeg water* 'glutinous *tape* water'; (5) procession around the village accompanied by *reog* attractions; and (6) releasing live chickens donated by residents who have vows to be competed for by visitors. Third, the *Dawuhan* water preservation ceremony was held in Nglurah Village. The procession includes (1) cleaning the area, replacing fallen trees, and placing offerings at water sources on the slopes of Mount Lawu; (2) residents gather on the banks of the Uli-Uli River which passes through Nglurah Village bringing offerings in the form of rice and side dishes; (3) praying together to be grateful for the abundance of water as a source of life for farmers; and (4) exchanging offerings to be eaten together. Through research that includes environmental and food sustainability value literacy among primary school students in rural areas. This study aims to describe the level of students' literacy on food and environmental sustainability values embedded in their local wisdom.

2. METHOD

This research was conducted in Tawangmangu District, Karanganyar Regency, Central Java Province. The area is located to the west of Mount Lawu so it is a highland area with an average height of 1200 m above sea level. Tawangmangu is the area with the highest rainfall, even in the dry season it often rains. With such geographical and climatic conditions, agricultural land in this area is not suitable for planting rice. Suitable agricultural commodities are vegetables and secondary crops (corn, cassava and sweet potatoes). Therefore, Tawangmangu is rich in local wisdom with environmental and non-rice food themes, namely stories about the origins of vegetable plants, stories about the origins of corn plants, traditional village clean ceremonies, traditional ceremonies for preserving water, sacred places, special foods made from corn (corn rice and corn cake).

This research was conducted using mixed methods, namely qualitative and quantitative. The approach is a case study. A case study is a research strategy that closely investigates programs, events,

activities, processes or individual groups. Case studies are used to answer the questions “what, how, and why” (Creswell, 2010). The focus of the research is a description of the literacy level of elementary school students regarding the values of food and environmental sustainability in the local wisdom of their region. The participants were grade 6 students who attended schools in the villages of Pancot, Kalisoro, Blumbang, Nglurah and Tawangmangu. The five villages are close to each other so that interactions between their residents often occur, especially during traditional ceremonies. There are 13 elementary schools spread across the five villages. The total number of 6th grade students is 251 people. Thus, participant selection was carried out using a purposive sampling technique.

Research data includes (1) literacy regarding the value of food preservation in local wisdom, especially in two food origin stories and (2) literacy regarding the value of environmental preservation in local wisdom, especially in traditional ceremonies. Literacy data was collected through a questionnaire which was then followed by in-depth interviews. The questionnaire developed is specific to cultural literacy. Cultural literacy is equated with 'cultural literacy' which means having an attitude, sensitivity and involvement towards the identity, heritage and culture of oneself and others (Maine, et al., 2019). Referring to the two boundaries set, this research's cultural literacy includes 3 indicators, namely students' understanding, support and involvement in their local wisdom.

Based on the 3 indicators above, to measure literacy on the value of food preservation, 6 questions were developed related to folklore about the origins of food and traditional foods made from corn. There are two folktales that have become local wisdom in Tawangmangu, namely the origin of vegetables entitled *King Baka and Putut Tetuka* and the origin of the corn plant entitled *Narotama*. Meanwhile, to measure literacy in the value of environmental preservation, 7 questions related to traditional ceremonies are provided. There are three traditional ceremonies related to environmental protection, namely the *Dukutan* village clean ceremony, the *Mondosiyo* village clean ceremony, and the *Dawuhan* water protection tradition ceremony. The answer choices provided refer to a Likert scale with 4 answer scales, namely strongly agree (SA), agree (A), disagree (DA) and strongly disagree (SDA). Two questionnaires were validated by Indonesian language education experts and cultural experts. The expert test results showed that both sets of questionnaires were valid. The results of the questionnaire were followed up with in-depth face-to-face interviews to explore students' reasons for giving consent or otherwise.

This research data includes quantitative and qualitative data. Quantitative data was obtained from questionnaires, while qualitative data was obtained from interviews. To analyze quantitative data, this was done by calculating the percentage of students who chose SA, A, DA, or SDA responses for each statement. Meanwhile, analyzing qualitative data is carried out using an interactive model. Interactive data analysis has the following stages: data collection, reduction of existing data obtained, arranging the reduced data according to groups, and drawing conclusions (Miles & Huberman, 2014).

3. RESULT AND DISCUSSION

Result

To measure students' literacy regarding food security content in folklore, a questionnaire containing 6 statements was used. The presentation of quantitative data is complemented by qualitative data which is the result of interviews to explore student responses to the questionnaire. Data on food preservation literacy in folklore about the origins of vegetables and corn are presented in Table 1.

Table 1. Student Literacy Data on the Value of Food Sustainability in Folktales

| | States | Percentage | | | |
|---|---|------------|-----|-----|-----|
| | | SA | A | DA | SD |
| 1 | I agree that in the Prabu Baka folktale or the origin of vegetables there is a message that vegetables are plants that are suitable for the natural conditions of Tawangmangu | 17% | 14% | 69% | 0% |
| 2 | I agree that in Narotama folktale or the origins of corn, there is a message that corn is a food crop that is suitable for the natural conditions of Tawangmangu. | 14% | 14% | 42% | 30% |
| 3 | I agree that vegetable farming in Tawangmangu is preserved | 33% | 33% | 44% | 0% |
| 4 | I agree that farming of corn and secondary crops (cassava, sweet potatoes, bananas) in Tawangmangu is preserved | 14% | 28% | 44% | 14% |
| 5 | I am willing to eat vegetables produced from agriculture in Tawangmangu | | | | |
| 6 | I am willing to eat traditional Tawangmangu food made from corn (corn rice and corn cake) | 14% | 23% | 46% | 17% |

Regarding the first statement, namely "I agree that in the Prabu Baka folktale or the origin of vegetables there is a message that vegetables are plants that are suitable for the natural conditions of Tawangmangu", less than 40% of students gave their agreement. Meanwhile, more than 60% said they disagreed. Students who gave approval reasoned that (1) the folk tale of Prabu Baka is known as the story of the origin of vegetables, (2) at the end of the story, it is said that all parts of Prabu Baka's body transformed into vegetables, and (3) according to his parents' beliefs, Prabu Baka had choose vegetables as suitable plants in Tawangmangu. The reasons why students said they did not agree were (1) they had never accessed the Prabu Baka folklore and (2) they did not know that the natural conditions of Tawangmangu were more suitable for vegetable crops than rice. This information can be linked to the following student statement.

"Grandma said that Prabu Baka's story was the same as the story of the origin of vegetables because after he died, Prabu Baka's body turned into vegetables." (Student from Pancot Village)

"People in my father's garden said that in Tawangmangu you cannot plant rice because Prabu Baka has chosen suitable plants, namely vegetables and secondary crops such as cassava and corn" (Student from Kalisoro Village).

"I don't know about the story of Prabu Baka because my parents and teachers never taught me" (Student from Tawangmangu Village).

"It turns out that Tawangmangu is suitable for planting vegetables because it often rains and the land is very sloping," (Student from Tawangmangu Village).

Regarding the second statement, "I agree that in Narotama folktale or the origins of corn, there is a message that corn is a food crop that is suitable for the natural conditions of Tawangmangu", less than 30% of students expressed their agreement and more than 70% of students did not agree. The reasons the students gave their approval were (1) Narotama as the main character forbade residents from planting rice because the harvest always failed, (2) Narotama invited residents to plant corn, and (3) Narotama asked residents to eat corn rice. From the interviews, two reasons were identified for students expressing their disagreement, namely (1) they did not know the Narotama folklore and (2) no one grew corn in their village. Interview excerpts are presented as follows.

"Previously, farmers here planted rice and kept failing, then Narotama told the farmers to plant corn and the results were abundant. They say the land in Tawangmangu is not suitable for planting rice" (student from Nglurah Village)

"Because there are lots of corn plants, Narotama used to teach people here to cook and eat corn rice, not rice" (student from Tawangmangu Village).

"I didn't know there was a story about Narotama who was a hero about corn plants in Tawangmangu" (student from Blumbang Village)

"Nowadays, farmers rarely plant corn, so I don't agree that the Narotama story is a story that really happened" (student from Kalisoro Village)

Regarding the third statement, namely "I agree that vegetable farming in Tawangmangu is preserved", the majority of students (66%) stated that they strongly agreed and agreed. Another 44% said they disagreed. The reasons why students expressed their agreement were (1) the majority of Tawangmangu residents work as vegetable farmers and (2) now vegetable gardens have become a tourist destination. The reasons why students disagree are that sometimes the price of vegetables is too low so that vegetable farmers suffer losses and (2) there are monkeys and wild boars that destroy vegetable gardens. Excerpts from interviews with students include the following.

"I really agree because my father is a vegetable farmer." (students from Kalisoro Village)

"In my village now many tourists are looking at and taking photos at the edge of the vegetable garden. So, I agree that vegetable gardens should be preserved" (student from Pancot Village)

"I don't agree because the price of crops, for example shallots and leeks, are often too cheap so farmers suffer a lot of losses" (student from Pancot Village).

"I don't agree because my father and other farmers' carrot and potato gardens were damaged several times by monkeys and wild boars, so the harvest failed" (student from Tawangmangu Village)

Regarding the fourth statement, "I agree that planting corn and secondary crops (cassava, sweet potatoes, bananas) in Tawangmangu is preserved", only 35% of students said they strongly agreed or agreed and the majority of students (65%) said they disagreed. From the interviews, it was found that the reasons why students gave their approval were (1) in Tawangmangu there are many people who sell food made from corn and secondary crops and (2) corn and secondary crops are processed into delicious food. The reasons why students disagree are (1) many Tawangmangu residents have switched to farming ornamental plants because they are more profitable than corn or secondary crops and (2) corn and secondary crops gardens are often looted by monkeys and wild boars. Excerpts from interviews with students who expressed agreement and disagreement are presented as follows.

"I agree because in Tawangmangu there are many people selling food made from corn, sweet potatoes, sigkong and bananas as souvenirs for tourists" (student from Tawangmangu Village)

"Agree, because I like foods made from corn and cassava such as jasuke (corn, milk, cheese) and getuk" (student from Tawangmangu Village). "I don't agree because the corn produced by farmers here (local corn) doesn't sell well so everyone switches to ornamental plants which sell better.

"Last year, Nglurah Village here was given the name 'village of a thousand flowers' by the Regent" (student from Dewa Nglurah)

"In my village there are lots of pests, namely monkeys and wild boars, who like to plunder the corn, sweet potatoes and cassava plants that are about to be harvested. So I don't agree if farmers continue to plant corn," (student from Kalisoro)

Regarding the fifth statement, namely "I am willing to eat vegetables produced by Tawangamangu residents", the majority of students stated that they strongly agreed and agreed. Only 11% said they disagreed. The reasons why students express their agreement are (1) every day vegetables from their own garden are a mandatory menu item and (2) mothers can make several variations of side dishes using vegetables. The reasons why students disagree are (1) they don't like eating vegetables and (2) they don't usually eat vegetables. This information can be linked to the following student statement.

"I like eating vegetables because every day my mother provides them. The vegetables are taken from our own garden, such as spring onions and mustard leaves." (Student from Kalisoro Village)

"I am willing and very happy to eat vegetable side dishes, such as scallion peppers mixed with grated coconut and scrambled eggs with cabbage and carrots" (student from Pancot Village)

"I don't want to eat vegetables because they're not delicious" (Student from Pancot Village).

"I don't like eating vegetables because my mother sells them at the market every day so there's no one to cook at home." (Student from Tawangmangu Village)

Regarding the sixth statement, "I am willing to eat traditional Tawangmangu food made from corn (corn rice and corn cakes)", only 37% of students expressed their agreement and (63%) expressed their disagreement. The reasons why students strongly agree and agree are (1) cakes made from corn taste delicious and (2) corn rice is seen as a healthy food. The reasons why students express their disagreement are (1) there is a prohibition on consuming food made from corn, (2) rice is seen as more practical, and (3) there is a negative view from the economic aspect towards food made from corn. Several excerpts from interviews with students are presented below.

"I like corn cakes that are made during the village cleaning ceremony because they taste delicious like rice cakes" (student from Nglurah Village)

"My father eats corn rice every day because he is sick with diabetes and I and the people at home often eat corn rice to stay healthy" (student from Tawangmangu Village).

"My father was forbidden from eating rice and cakes made from corn because he said they were devil's food, made only as offerings for the village's traditional clean ceremonies" (student from Nglurah Village)

"I never eat corn rice because my mother said corn rice is for poor people, so people are embarrassed if they eat corn rice." (Student from Pancot Village).

The local residents of Tawangmangu have three traditional ceremonies which are held periodically and involve all residents, which include the village clean traditional ceremony of *Mondosiyo*, the village clean traditional ceremony of *Dukutan*, and the water protecting traditional ceremony of *Dawuhan*. These three traditional ceremonies are related to preserving the environment and natural resources. A description of the literacy value of environmental sustainability for grade 6 elementary school students in Tawangmangu can be read in [Table 2](#).

Table 2. Student Literacy Regarding the Value of Environmental Sustainability in Traditional Ceremonies

| | States | Percentage | | | |
|---|---|------------|-----|-----|-----|
| | | SA | A | DA | SD |
| 1 | I agree that in the Mondosiyo traditional ceremony there is a mandate to preserve the environment | 26% | 41% | 33% | 0% |
| 2 | I agree that in the Dukutan traditional ceremony there is a mandate to preserve the environment | 30% | 48% | 22% | 0% |
| 3 | I agree that in the Dawuhan traditional ceremony there is a mandate to conserve water resources | 48% | 26% | 14% | 0% |
| 4 | I support the preservation of the clean tradition ceremony of Mondosiyo village | 26% | 22% | 35% | 17% |
| 5 | I support the preservation of Dukutan village's clean tradition ceremony | 22% | 33% | 26% | 22% |
| 6 | I support the traditional ceremony to preserve the Dawuhan water | 57% | 34% | 12% | 13% |
| 7 | I support a ban on cutting down trees in places where it continues | 57% | 34% | 9% | 0% |

Regarding the first statement, namely "I agree that in the Mondosiyo ceremony (which was held in Pancot, Kalisoro and Blumbang villages) there was a mandate to preserve the environment", the majority of students stated that they strongly agreed and agreed. Only 33% said they disagreed. The reasons why students expressed their agreement were (1) the Mondosiyo traditional ceremony which is better known as the Mondosiyo village clean ceremony and (2) one of the processions was cleaning the village environment. The reasons why students expressed their disagreement were (1) they had never seen the Mondosiyo ceremony and (2) their parents prohibited it. Excerpts from student statements include the following.

"I agree because what I know is that Mondosiyo is a village clean ceremony. So, the aim is definitely to clean up the village environment." (Student from Kalisoro Village)

"Yes, there is a mandate to preserve it because before the peak of the Mondosiyo traditional ceremony, around the village and important places such as Bale Pathokan and Pendhapa Pancot are cleaned together" (student from Pancot Village).

"I don't know what the Mondosiyo ceremony is about because I've never seen it." (Student from Tawangmangu Village).

Regarding the second statement, "I agree that in the Dukutan ceremony (held in Nglurah Village) there is a mandate to preserve the environment", some students agreed, while 48% said they disagreed. The reason the students gave their approval was that there were activities to clean the village environment and the place for the Dukutan village clean ceremony procession, namely at the Menggung Site, which was

carried out en masse – involving all village residents. This activity fosters a perception among students that the implementation of the Dukutan ceremony is synonymous with environmental conservation. Students stated that they did not agree for the reasons (1) they had never seen it because they were in different villages and (2) their parents were prohibited from seeing the Dukutan ceremony. Quotes from interviews with students who stated strongly agree, agree and disagree are presented as follows.

"I agree that there is a message of preserving the environment at the Dukutan traditional ceremony because in its implementation there is an obligation for residents to clean their houses and surroundings.

"That means this event aims to preserve the environment" (student from Nglurah Village)

"I agree that in the Dukutan tradition there is a message of protecting the environment because there are activities to clean up the Menggung Site area and other places that are considered sacred" (student from Tawangmangu Village).

"I don't know about the mandate in the Dukutan ceremony because my house is not in Nglurah Village so I have never seen it." (students from Kalisoro Village)

"I don't know the mandate of the Dukutan ceremony because my parents were forbidden to see it." (students from Dewa Nglurah)

Regarding the third statement, "I agree that in the Dawuhan ceremony (held in Nglurah Village) there is a mandate to preserve water sources", the majority of students agreed, while only 14% said they disagreed. From the interviews, the reason the students stated that they strongly agreed and agreed was that the main activity in the Dawuhan ceremony was cleaning the springs in the hilly area and the river that passes through their village. Sang stated that he did not agree because he did not know and had never seen the Dawuhan ceremony. Examples of student statements are presented as follows.

"The Dawuhan tradition is said to be a ceremony to protect water, so I agree that the mandate of this tradition is to conserve water in the village" (student from Tawangmangu Village)

"I have never participated in the Dawuhan tradition so I don't know the purpose of holding this activity" (student from Kalisoro Village)

Regarding the fourth statement, "I support the preservation of the clean tradition ceremony of Mondosiyo village", 48% of students gave their approval, while the other 52% did not give their approval. The reason why students strongly agree and agree is based on the reason that cleaning the environment is good and at the Mondosiyo village clean ceremony there are cleaning activities around the house and the entire village. The reasons the students did not give their consent were (1) there were activities that violated religion and (2) not everyone carried out the village cleaning procession at the Mondosiyo ceremony. Quotes from interviews with students who agreed and disagreed are presented as follows.

"I support the Mondosiyo ceremony being held continuously because before the D-day there are activities to clean the house and village environment." (students from Blumbang Village)

"I don't support holding the Mondosiyo traditional ceremony because my parents said that at the ceremony there was an activity to make offerings for spirits" (student from Pancot Village).

"I do not support holding the Mondosiyo traditional ceremony because not all residents carry out environmental cleaning activities" (student from Dewa Kalisoro)

To the fifth statement, "I support preserving the clean traditions of Dukutan village", there were 48% of students who gave their approval. The other 52% did not give approval. The reason why students strongly agree and agree is based on the reason that cleaning the environment is good and at the Dukutan village clean ceremony there was an activity to clean the places where it was carried out which involved all the village residents. This activity fosters a perception among students that the implementation of the Dukutan ceremony is synonymous with environmental preservation. From the interviews, two reasons were identified for students stating that they did not agree, namely (1) being prohibited by their parents

and (2) not knowing about the Dukutan ceremony. Quotes from interviews with students who stated that they strongly agreed, agreed and disagreed were presented as follows.

"I support the Dukutan tradition because it can preserve the environment." (Student from Pancot Village)

"There is a message about protecting the environment because there is an activity to clean up the Menggung Site area which is considered sacred" (student from Tawangmangu Village).

"I didn't know that the Dukutan ceremony was to protect the environment because my parents were prohibited from participating and seeing it" (student from Dewa Nglurah)

To the sixth statement, "I support the traditional ceremony of preserving the Dawuhan water", almost all students gave their approval. Only 8% said they disagreed. The reasons the students gave their approval were (1) there was an activity to clean the Dukutan village clean ceremony site, namely at the Menggung Site, which was carried out en masse – involving all village residents. This activity fosters a perception among students that the implementation of the Dukutan ceremony is synonymous with environmental preservation. From the interviews, two reasons were identified for students stating that they did not agree, namely that their parents prohibited them and they were not aware of the Dukutan ceremony. Quotes from interviews with students who stated strongly agree, agree and disagree are presented as follows.

"I really support the Dawuhan ceremony continuing to be held so that residents always protect the springs and the Uli-Uli River from being damaged." (Student from Tawangmangu)

"I support the water conservation ceremony because the livelihood of the residents of Nglurah Village is farming so the availability of water is very important" (student from Nglurah Village)

"At the Dawuhan ceremony, people clean up the dirt in the Uli-uli River so that the water flows smoothly and cleanly. So, it is very important that this method continues to be carried out to maintain the quality and quantity of water" (student from Tawangmangu Village).

"I don't agree with traditional ceremonies because it is an act that violates religion" (student from Dewa Nglurah)

Regarding the seventh statement, "I support the continuation of the prohibition on cutting down trees in sacred places", almost all students stated that they strongly agreed and agreed. There were 8% who said they disagreed. The reasons why students gave their approval were (1) the trees in the hills around the village function to prevent natural disasters (2) the trees on the slopes of Mount Lawu function to store water, (3) cutting down trees causes animals in the forest to come down to the village, and (4) many trees were cut to build tourist attractions. The reason the students stated that they did not agree was that the prohibition on cutting down trees was associated with a mythical figure in the folk cheer. Excerpts of several student statements are presented as follows.

"I really support the ban on cutting down trees in the Mount Lawu forest so that floods and landslides don't occur like before" (student from Kalisoro Village)

"I support the ban on cutting down trees in sacred places such as Pringgodani Cave where there is a water source to prevent the area below from running out of water." (students from Blumbang Village).

"I support the ban on cutting down trees in hill areas for tourist attractions so that there is food for monkeys and wild boars so they don't look for food and destroy farmers' gardens" (student from Tawangmangu Village)

"I do not support the ban on cutting down trees at the Menggung Site if the reason is so that Mbah Mengung doesn't get angry" (student from Dewa Nglurah)

Discussion

Conclusion based on the quantitative and qualitative data presented above, it can be interpreted as follows. First, most students are not aware of the mandate for food preservation in the story of the origins

of vegetables and corn which is the local wisdom of their village. The effect is that they also do not provide support and involvement to maintain non-rice food. This shows that one of the causes of students' low literacy towards positive messages in folklore is the lack of dissemination. In fact, from the research, cultural literacy can function to instill various positive attitudes in students, for example religious attitudes, tolerance, humanity, openness (Damaianti et al., 2017; Ruslan, I. & Irham, 2023). Cultural literacy fosters students' sensitivity to the noble values of religion, customs and culture that can be internalized in their lives (Colombi, 2015; Damaianti et al., 2017). Therefore, other research recommend that cultural literacy be carried out in the form of monologue cultural literacy, but in a dialogic form because modern society is characterized by a plurality of cultures and heritages as well as different, even competing, narratives and ideas, regarding cultural artifacts and traditions (Maine, F., Cook, V. and Lähdesmäki, 2019; Ochoa & McDonald, 2019).

The second finding of this research is that the majority understand that there is a mandate for environmental protection in the implementation of traditional ceremonies, both village cleans and water harvesting. The factors that cause this are (1) activities to maintain the cleanliness of the environment and natural resources in traditional ceremonial processions can be accessed by students; (2) traditional ceremonies are held periodically and are mass in nature or involve all residents; (3) holding traditional ceremonies from year to year becomes more lively because it is intended as a tourist destination so that promotion becomes more intensive; and (4) the implementation of traditional ceremonies is on the district government's agenda so that regional officials and journalists attend. This shows that real activities carried out continuously through traditional ceremonies have a positive effect on support in maintaining the environment and natural resources. Therefore, it is important to integrate cultural literacy into school learning as practiced by several previous researchers. For example, applied culture-based digital materials in learning for grade 5 elementary school students in Bali (Udiyana & Arnyana, 2022). Apart from that, cultural literacy in learning for early childhood in Probolinggo (Baharun, et al., 2022).

4. CONCLUSION

The research results show that the majority of students have a positive perception of the value of environmental sustainability in local wisdom, but only a small percentage provide support for the value of food sustainability. This fact is in line with the level of acceptance of students' knowledge. On average, their understanding of the mandate of environmental elements is higher than local wisdom regarding food. The causal factors identified are first, the lack of access to folklore about the origins of food by students. Second, there is a negative view of corn food which is labeled as "devil's food" because it is the main offering at traditional ceremonies. Third, there is a negative view from the socio-economic aspect of corn rice. Fourth, students do not see corn farming in their village.

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