

From Local Culinary Knowledge to the Nature of Science: An Ontological, Epistemological, and Axiological Analysis of Lentog Tanjung for Science Education

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ABSTRACT

The relationship between local knowledge and science has been largely understood through the identification of scientific concepts embedded in community cultural practices. This approach is important for demonstrating the link between culture and science, but it does not fully explain how local knowledge is constructed, inherited, and recognized in social life. Based on this, this study aims to examine Lentog Tanjung, a traditional culinary specialty of Tanjungkarang Village, Kudus Regency, through the perspectives of ontology, epistemology, and axiology and examine its relevance in understanding the nature of science and science education. The study uses a qualitative approach by combining literature studies and in-depth interviews with Lentog Tanjung sellers as key informants. Data are analyzed descriptively and interpretively using a philosophy of science framework to uncover the realities present in culinary practices, the processes of knowledge formation that accompany them, and the values that exist within the community. The results show that Lentog Tanjung represents not only a cultural product but also encompasses various natural phenomena related to concepts in biology, chemistry, and physics, such as plant-based food processing, fermentation, colloidal systems, and heat transfer. Knowledge about Lentog Tanjung develops through empirical experience, observation, experimentation, evaluation, and intergenerational inheritance processes that occur in the community's daily practices. Furthermore, these practices contain cultural, social, economic, educational, and ecological values that contribute to the sustainability of the local community. Research findings indicate that the characteristics of the knowledge developed in the practice of making Lentog Tanjung align with several aspects of the nature of science, particularly its empirical, creative, and tentative nature, and its connection to the socio-cultural context. This research confirms that local culinary knowledge can be utilized not only as a context for learning science concepts but also as a means to understand how knowledge is constructed, maintained, and interpreted in human life.

Keywords: Lentog Tanjung, philosophy of science, nature of science, local wisdom, science education, ethnoscience.

INTRODUCTION

Science education in the 21st century is no longer understood merely as the process of transferring scientific concepts, laws, and theories to students (Akbar et al., 2025; Ramaila & Molwele, 2022). Developments in science education studies indicate that science learning needs to be directed at building a more comprehensive understanding of how scientific knowledge is generated, developed, and used in human life. In this context, understanding the nature of science is a crucial component because it relates to how students view science as a human activity that is empirical, creative, tentative, and influenced by social and cultural contexts (García-Carmona, 2025; Putri et al., 2021). Understanding the nature of science is also seen as an important foundation in the development of scientific literacy (Handayani, 2025) because it helps students apply scientific knowledge more critically and reflectively in everyday life (Sanjiartha et al., 2024).

Despite the development of various learning innovations, science instruction in schools still focuses heavily on students' conceptual mastery and cognitive achievement. Scientific knowledge is often presented as a collection of facts, principles, and theories that need to be understood, while the process by which this knowledge is formed receives less attention (Pratiwi, 2022). As a result, students are more familiar with the end result of science than with the process or way in which knowledge is generated, tested, and accepted as part of science. This situation results in limited student understanding of the epistemological and social dimensions of science (Utomo et al., 2024). Yet, the development of science always occurs within the context of human life and is inseparable from the experiences, needs, and environments in which that knowledge develops. This awareness drives the importance of presenting learning that is closer to the realities of students' lives (Satria et al., 2026).

One source of learning closely related to community life is local knowledge, which grows and develops within a community. This knowledge stems from the community's long experience interacting with the environment and is passed down through various daily practices rooted in real-life experiences. Local knowledge encompasses the ways in which communities understand, explain, and solve the problems they face. Latip and Hernani (2024) demonstrate that utilizing local wisdom and indigenous knowledge in science education can help connect learning with more meaningful experiences for students. Thus, local knowledge is not only relevant as a source of learning context (Indriyani et al., 2024) but can also be a path to understanding how knowledge is constructed and interpreted in community life (Latip & Hernani, 2024). This perspective opens up opportunities to examine various cultural practices, including traditional culinary arts, as part of an effort to understand the nature of science in a context more closely related to everyday life.

This view aligns with various ethnoscience studies that place local culture as a relevant learning resource in science learning. Ethnoscience integration not only helps students understand scientific concepts more contextually but also strengthens scientific literacy, critical thinking skills, and awareness of cultural values developed in society (Hidayati & Julianto, 2024; Maharani et al., 2026). Through this approach, cultural practices are no longer positioned as knowledge separate from science, but rather as part of human experience that can be reconstructed to understand various natural phenomena scientifically (Aufa et al., 2025; Muslih, 2025). The integration of local wisdom in science education contributes to more meaningful learning because it is able to connect scientific concepts with the context of students' lives (Putra & Wahyuni, 2025). This approach also supports the development of education that is not only oriented towards mastery of knowledge, but also on the formation of cultural identity, environmental awareness, and social sustainability.

One form of local wisdom that has developed and persists in the lives of Indonesian people is culinary traditions. Traditional culinary not only represents the cultural identity of a region, but also stores various forms of knowledge obtained through empirical experience, observation, environmental adaptation, and the process of intergenerational inheritance. Knowledge regarding the selection of ingredients, processing techniques, temperature settings, and determining food quality is basically the result of society's interaction with various natural phenomena that take place over a long period of time. Therefore, traditional culinary practices can be understood as a space where local knowledge, empirical experience, and cultural activities are intertwined.

In this context, Lentog Tanjung is one of the traditional culinary delights typical of the Pantura community, especially the Tanjung Karang area, Kudus Regency, Central Java. This food consists of rice cake, young jackfruit, tempeh or tofu, and coconut milk sauce, which is processed through various stages of food processing. Processing practices involve a variety of people's empirical experiences, starting from selecting ingredients, setting cooking times, using heat, and determining the quality of the final food product. This knowledge develops through people's daily practices and is passed down from generation to generation without going through a formal education system. Based on these characteristics, Lentog Tanjung is not only a cultural product, but also a representation of local knowledge born from human interaction with the environment and their life experiences.

Various studies on ethnoscience to date have generally focused on identifying scientific concepts embedded in cultural practices or on developing learning tools based on local wisdom. Studies on traditional foods, for example, have focused more on exploring the concepts of physics, chemistry, and biology that emerge during food processing. Meanwhile, studies that seek to understand cultural practices through the ontology,

epistemology, and axiology of the philosophy of science are still relatively limited. However, philosophical analysis allows for a deeper understanding of local knowledge, not only as a source of scientific concepts but also as a representation of how knowledge is constructed, validated, and utilized in community life.

These limitations indicate that there is still room for development in science education research. To date, ethnoscience studies have generally stopped at the stage of reconstructing scientific concepts from cultural practices, while the philosophical dimensions related to the nature of knowledge have received little attention. In fact, the perspectives of ontology, epistemology, and axiology are closely related to the characteristics of the nature of science which places science as a knowledge process that is empirical, creative, tentative, and influenced by the socio-cultural context (García-Carmona, 2025) so that, analysis of local knowledge through the framework of the philosophy of science has the potential to provide broader contributions to science learning, especially in building students' understanding of the nature of science (Cheung & Erduran, 2023). Therefore, this study aims to analyze Lentog Tanjung through the perspectives of ontology, epistemology, and axiology of the philosophy of science and examine its relevance in building an understanding of the nature of science in Science Education. Thus, Lentog Tanjung can be positioned as a bridge to understand the relationship between science, culture, and human experience in the context of Science Education.

METHOD

This research uses a qualitative approach with an interpretive case study design. This approach was chosen because the research focuses on understanding the meaning and construction of knowledge that develops in the culinary practice of Lentog Tanjung as part of the local wisdom of the community. The analysis was conducted through a philosophy of science perspective to uncover the dimensions of ontology, epistemology, and axiology contained in the practice of processing and interpreting Lentog Tanjung. The research was conducted in Tanjung Karang Village, Jati District, Kudus Regency, Central Java. This location was chosen because it is one of the areas where Lentog Tanjung is produced and marketed sustainably by the community that still maintains traditional processing techniques. In addition, Lentog Tanjung sellers in this area have long experience in producing this food, allowing for the acquisition of rich information regarding the process of formation and inheritance of local culinary knowledge.

The research data sources consisted of primary and secondary data. Primary data were obtained through in-depth interviews with purposively selected informants. The informants included Lentog Tanjung sellers with several years of experience producing and selling Lentog Tanjung,

understanding food processing, and familiarity with the history and development of the recipe. The interviews focused on the informants' experiences in acquiring knowledge about Lentog Tanjung, the recipe development process, processing techniques, considerations in determining product quality, and the values underlying the continuation of this culinary tradition. Secondary data were obtained through a literature review, including scientific articles, books, cultural documents, and various publications relevant to the philosophy of science, the nature of science, ethnoscience, and local wisdom in science education. The literature served as a theoretical foundation and as comparative material in the field data interpretation process.

Data collection was conducted through semi-structured interviews and documentation. Semi-structured interviews were chosen to provide informants with the freedom to explain their experiences and knowledge, while also allowing researchers to explore information related to the dimensions of ontology, epistemology, and axiology. Documentation was conducted on the Lentog Tanjung processing process, the materials used, and various written sources supporting the research analysis. Data analysis was conducted interactively, referring to the model of Miles, Huberman, and Saldaña (2014), which includes data condensation, data presentation, and conclusion drawing. Interview data were first transcribed and categorized into themes related to the reality of the object of study, sources of knowledge, empirical experiences, the process of knowledge transmission, and the values embodied in Lentog Tanjung. Next, the data were interpreted using a philosophical framework. Ontological analysis aimed to identify the phenomena and realities embodied in the Lentog Tanjung processing practice. Epistemological analysis focused on how knowledge is acquired, developed, and passed on within society. Meanwhile, axiological analysis was used to examine the values, functions, and benefits inherent in Lentog Tanjung's existence in community life. To ensure data credibility, the study employed source triangulation by comparing information obtained from interviews and literature studies. Furthermore, interpretation was conducted repeatedly, taking into account the cultural context of the community and the theoretical framework of the philosophy of science and science education, to achieve a comprehensive understanding of Lentog Tanjung as a representation of local knowledge and its relevance to understanding the nature of science.

FINDINGS AND DISCUSSION

Lentog Tanjung as Local Knowledge

Lentog Tanjung is a traditional culinary dish still produced and consumed by the people of Pantura (North Coast), particularly in the Kudus region. Unlike modern food products, which generally rely on standard recipes and documented production standards, knowledge of Lentog Tanjung develops through the community's daily practices. This knowledge is passed down

through generations through direct involvement in the production process, observation of the practices of previous generations, and experience gained while running a culinary business.

Lentog Tanjung is a traditional culinary dish still preserved by the people of Tanjungkarang Village, Kudus Regency. This dish consists of rice cakes (*lontong*), young jackfruit, tempeh or tofu, and coconut milk sauce, all served as a single dish. This composition reflects the utilization of local food resources that have developed in the community's lives for generations. The presentation of Lentog Tanjung, the object of this study, can be seen in Figure 1.

Figure 1:

Lentog Tanjung as a Traditional Kudus Culinary



Source: author's personal documentation

As seen in Figure 1, Lentog Tanjung is composed of several ingredients that undergo different processing steps before finally being served in one dish. Each ingredient involves practical knowledge developed through community experience (Hikmah et al., 2015), from the processing of rice cakes, cooking young jackfruit, to the composition of coconut milk sauce. Therefore, Lentog Tanjung can be understood not only as a culinary product but also as a representation of local knowledge that lives within the community. Based on the results of interviews, it was shown that most informants obtained knowledge about Lentog Tanjung from parents or family members who had previously sold it. This knowledge includes the selection of raw materials, processing techniques, cooking time settings, and determining the product quality that is considered appropriate by consumers.

"Kalau masak gori itu harus direbus lama, biar empuk dan bumbunya meresap. Tempe juga harus diperhatikan, jangan terlalu asam, biar rasanya enak pas dicampur kuah santan. Santan juga nggak boleh pecah, jadi apinya sedang, diaduk terus pelan-pelan."

These findings demonstrate that Lentog Tanjung can be understood not only as a culinary product but also as a representation of local knowledge that continues to live within the community. This knowledge develops through a long process of interaction between humans, the environment,

and everyday life experiences. The construction of local knowledge in the production of Lentog Tanjung is shown in Table 1.

Table 1:
Construction of Local Knowledge in the Practice of Making Lentog Tanjung

Culinary Practice	Local Knowledge Constructed	Source of Knowledge
Rice selection	Identifying rice characteristics that produce high-quality <i>lontong</i>	Empirical experience
<i>Lontong</i> boiling	Understanding the relationship between cooking duration and <i>lontong</i> texture	Repeated practice and refinement
Coconut milk preparation	Regulating cooking temperature to maintain coconut milk stability	Direct observation
Young jackfruit processing	Recognizing indicators of ingredient maturity and readiness	Sensory experience
Serving practices	Adjusting ingredient composition to meet consumer preferences	Social interaction and customer feedback

Despite the growing standardization of traditional foods within the modern food industry, Lentog Tanjung retains a knowledge system that is largely shaped by intergenerational experience, observation, and practical engagement. Lentog Tanjung is still produced through household practices that maintain the direct involvement of the creators in every stage of production. Knowledge regarding the selection of raw materials, processing of coconut milk, determining the level of doneness of rice cakes, and adjusting the flavor does not depend entirely on written recipes, but rather on empirical experience that continues to develop through daily practice. This condition makes Lentog Tanjung an interesting context for examining the relationship between experience, knowledge construction, and the formation of understanding of reality. Furthermore, Lentog Tanjung not only represents a cultural product but also shows how society constructs, maintains, and validates knowledge used in everyday life. These characteristics make Lentog Tanjung relevant as an object of study in the

philosophy of science because it allows exploration of the dimensions of ontology, epistemology, and axiology that are often not revealed in traditional culinary studies that emphasize the description of ingredients, the process of preparation, and the cultural value of food. Thus, Lentog Tanjung can be positioned as a cultural heritage that also preserves the community's knowledge system regarding traditional food processing.

Lentog Tanjung Ontology: Understanding Ingredients, Processes, and Changes in Traditional Culinary Practices

In the philosophy of science, ontology is concerned with the study of the nature of something that becomes an object of knowledge. Ontological questions focus not only on what exists but also on how something exists and can be recognized through human experience (Kaplan & Beatty, 2022). In the context of Lentog Tanjung, ontological studies are not directed at food as a mere end product, but rather at all the elements that make it up, from the ingredients used, the processes involved, to the various changes that occur during processing. These three aspects serve as a starting point for understanding how phenomena related to science are present in the community's traditional culinary practices.

Lentog Tanjung is composed of various ingredients sourced from the surrounding environment, such as rice, young jackfruit, coconut, and tempeh/tofu. These ingredients are not only components of the food but also tangible objects with specific properties and characteristics. Rice contains starch, which determines the texture of rice cakes after cooking. Young jackfruit has a plant tissue structure that changes during the boiling process, while coconut milk is a natural emulsion system composed of water and fat. Tempeh, or tofu, which complements the dish, is fermented soybeans through the activity of microorganisms. The presence of these ingredients indicates that the practice of making Lentog Tanjung stems from community interactions with material objects that can be observed, touched, processed, and utilized in everyday life. From an ontological perspective, these objects form the basis for the birth of various forms of knowledge that develop within the community (Kaplan & Beatty, 2022; Sari et al., 2024).

However, the ontology of Lentog Tanjung can be understood not only through its constituent ingredients but also through the processes that occur during food preparation. The cooking process is essentially a series of interactions between ingredients, heat energy, time, and human skill. Rice, boiled for a certain amount of time, undergoes textural changes until it becomes a dense and chewy rice cake. Young jackfruit, initially hard, becomes softer after being heated for a sufficient amount of time. Coconut milk heated with spices produces a sauce with a distinctive flavor, but it also has the potential to undergo phase separation if the cooking process is not carried out properly. These various processes demonstrate that traditional culinary practices actually involve phenomena that can be observed

empirically and that they operate according to the same natural laws as those studied in science.

Another ontological aspect is evident in the changes that occur during the processing process. These changes are most closely related to science studies because they can be directly observed through changes in texture, color, aroma, and taste. In the process of making *lontong*, for example, the starch in rice undergoes gelatinization due to heating and water absorption, resulting in a denser and more compact structure (Gong et al., 2024). In young jackfruit, heating causes the plant cell walls to soften, resulting in a softer texture. Meanwhile, coconut milk undergoes changes in its physical properties during the cooking process related to emulsion stability and fat distribution within the liquid (McClements, 2020). These events demonstrate that the changes occurring in the practice of making Lentog Tanjung are not random events, but processes that can be explained through scientific principles. However, lentong Tanjung sellers do not directly explain these changes in scientific terms. For example, the doneness of lontong is determined by the degree of density of its texture after boiling. These observations suggest that society is dealing with the same phenomena as those studied by science, albeit using different language and explanatory frameworks. According to García-Carmona (2025) that the empirical experience of society in everyday life often starts from the same objects and phenomena as science, but is understood through different social and cultural contexts. This perspective shows that the phenomena studied in science are not actually separate from people's lives, but exist in everyday activities that are often considered simple. Therefore, Lentog Tanjung can be seen as one of the relevant local contexts to help students understand that science is rooted in human efforts to observe, recognize, and interpret the world around them. The ontological study in making lentong tanjung is as seen in table 2.

Table 2:

Ontological Phenomena in the Making of Lentog Tanjung

Preparation Stage	Observable Phenomenon	Related Scientific Concepts
<i>Lontong</i> boiling	Transformation of rice into a compact and elastic texture	Starch gelatinization and heat transfer
<i>Coconut</i> milk cooking	Changes in gravy viscosity and consistency	Emulsion stability and colloidal systems
Young jackfruit cooking	Softening of plant tissues	Structural modification of plant cells
Tofu utilization	Incorporation of a fermented food product	Microbial fermentation processes

Table 2 shows that traditional culinary practices are inseparable from the realities that are the object of scientific study. Local knowledge grows from direct interaction with these natural phenomena, thus having a strong ontological foundation.

Epistemology of Lentog Tanjung: Knowledge Construction through Empirical Experience

The epistemological dimension focuses on how knowledge is acquired and developed. Research shows that knowledge about Lentog Tanjung develops through a reflective and empirical process. Lentog Tanjung sellers do not simply passively accept recipes but make adjustments based on experiences gained during the production process. In this context, experience serves as a primary resource in building an understanding of the quality of ingredients, processing techniques, and product characteristics considered ideal.

This process demonstrates that local knowledge develops through mechanisms similar to scientific practice: observation of phenomena, experimentation with various possibilities, evaluation of results, and continuous improvement. These findings reinforce the view that community knowledge cannot be positioned solely as tradition, but rather as the result of experiential construction that is continuously tested in real-life contexts (Syafaren et al., 2018). This perspective aligns with contemporary understandings of the Nature of Science, which emphasizes empirical experience, creativity, and social context as crucial to the development of scientific knowledge (Cobo et al., 2022; Lederman et al., 2002; Zidny et al., 2020). This is as expressed by one informant:

"Awalnya saya hanya mengikuti cara yang diajarkan orang tua. Namun setelah menjalaninya selama bertahun-tahun, ada beberapa hal yang kemudian saya sesuaikan. Bukan karena resep yang lama kurang tepat, tetapi setiap orang biasanya memiliki cara masing-masing untuk menjaga agar rasanya tetap konsisten. Dari proses itu saya jadi memahami bagian mana yang perlu ditambah dan mana yang perlu dikurangi."

The various mechanisms that play a role in the construction of knowledge about the process of making lentog tanjung are shown in Table 3.

Table 3:

Knowledge Construction Mechanism in Lentog Tanjung Practice

Practice	Knowledge Embedded in Practice	Knowledge Source
Rice selection	Knowledge of rice characteristics associated with	Empirical experience

	desirable lontong quality	
Lontong preparation	Knowledge of the relationship between cooking time and texture development	Accumulated practical experience
Coconut milk processing	Knowledge of temperature control during cooking	Direct observation
Young jackfruit preparation	Knowledge of indicators used to determine ingredient readiness	Sensory experience
Serving and presentation	Knowledge of ingredient combinations preferred by consumers	Social interaction and consumer feedback

Table 3 shows that knowledge construction in the practice of making Lentog Tanjung occurs through a complex and ongoing process. Knowledge is not only passed down through intergenerational relationships but also reinforced through observation of cooking results, adjustments to ingredient composition based on experience, and evaluations obtained from customer feedback.

Tanjung Lentog Axiology: Value, Function and Sustainability of Local Knowledge

From an axiological perspective, the value of knowledge is not only measured by its truth, but also by the benefits it produces for human life. In the practice of making Tanjung Lentog, the knowledge that has developed in the community shows this function in real terms. Knowledge regarding the selection of ingredients and processing is not only aimed at producing food that is suitable for consumption, but is also a means of maintaining product quality that has been known to the public for many years. Thus, the knowledge passed down in culinary practices has practical value because it helps people solve everyday problems related to food processing (Aikenhead & Michell, 2011).

The cultural value of Lentog Tanjung lies in its ability to maintain local knowledge that has developed through the community's long experience. Knowledge about the characteristics of ingredients, cooking techniques, and flavors that are considered ideal is passed from one generation to the next through direct practice. From a scientific perspective, this process shows that knowledge is not born separately from the cultural context, but is formed and maintained by the community that uses it

(Hikmah et al., 2015). This is in line with the Nature of Science view which places science as a human activity that is influenced by certain social and cultural settings (Lederman & Abd-el-khalick, 2015). In other words, the sustainability of Lentog Tanjung shows that culture plays an important role in maintaining, developing and transmitting knowledge that is considered valuable by society.

The economic value of Lentog Tanjung is also closely related to science. The seller's ability to maintain the quality of taste and texture cannot be separated from a practical understanding of the nature of the ingredients and the processing process. Knowledge about the maturity level of lontong, the stability of coconut milk, or the correct composition of spices is an important asset in maintaining consumer trust. In this context, knowledge rooted in empirical experience contributes directly to business sustainability and community livelihoods. This finding shows that knowledge related to scientific phenomena has economic value because it can be used to produce products that are valuable and accepted by the market. This confirms that local knowledge develops because it provides real adaptive benefits for the lives of its supporting communities (Barkes, 2008; Nasution et al., 2025).

In the context of science education, the axiological value of Lentog Tanjung is seen in its potential as a means of showing that science is not just a collection of concepts studied in the classroom. Through Lentog Tanjung, students can understand that scientific knowledge has the function of explaining phenomena encountered in everyday life as well as helping people make better decisions. The relationship between materials, processes, and changes that occur during the making of Lentog Tanjung shows that natural science concepts are present in the cultural practices of the community. Therefore, Lentog Tanjung can be positioned as a learning context that not only helps students understand scientific concepts, but also understands the value and use of science in human life. This understanding is the core of the axiological dimension of science, namely that knowledge ultimately has meaning when it is able to provide benefits to society and the environment (Corrigan et al., 2020; Delimanugari et al., 2026; Zidny et al., 2020).

In general, the research findings show that Lentog Tanjung can not only be understood as a traditional culinary product, but also as a space where various dimensions of the essence of science are present in people's life practices. In the ontology dimension, Lentog Tanjung shows the existence of materials, processes and changes which are the object of scientific study. In the epistemological dimension, knowledge about making Lentog Tanjung is built through observation, experience, evaluation and intergenerational inheritance. Meanwhile, in the axiological dimension, this knowledge has cultural, social, economic and educational value which provides real benefits for society. These three dimensions show that traditional culinary practices not only contain natural science concepts, but

also reflect how knowledge is built and utilized in human life. Therefore, Lentog Tanjung can be positioned as a conceptual bridge that helps explain the nature of science more contextually and closely to students' experiences as shown in Figure 2.

Figure 2:
Conceptual Model of Lentog Tanjung as a Bridge to Understanding the Essence of Science

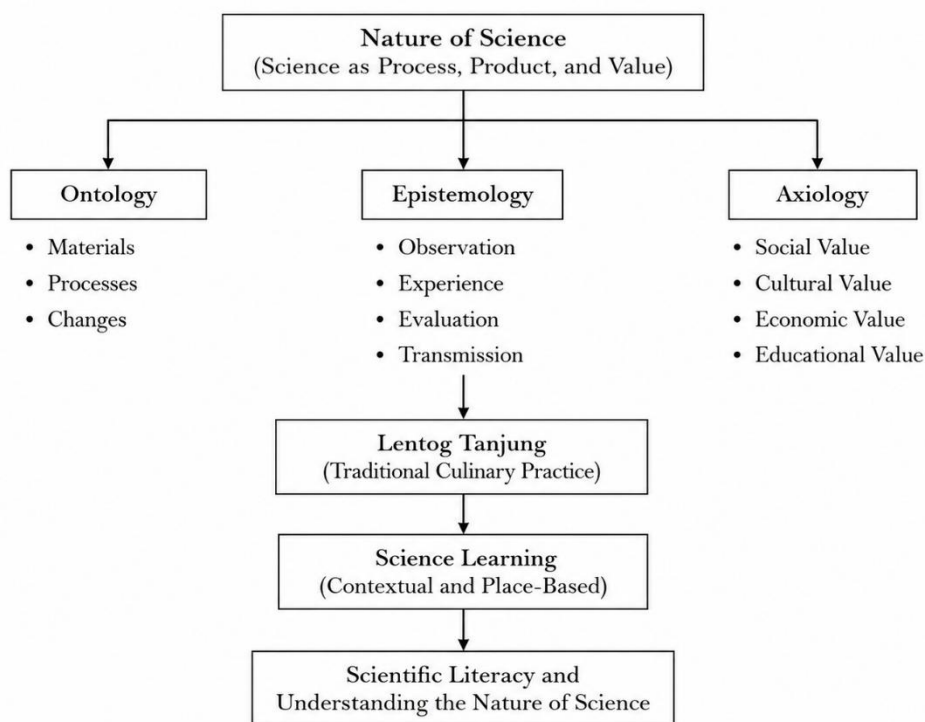


Figure 2 shows that the practice of making Lentog Tanjung cannot be separated from the interaction between natural phenomena, empirical experience, and the value systems that develop within society. These three aspects coexist in the daily activities of Lentog Tanjung makers, forming a body of knowledge that not only functions practically but is also based on experience that can be observed and passed down from generation to generation. In this context, local knowledge is not positioned as something outside of science, but rather as part of the human process of understanding and responding to the realities they encounter.

CONCLUSION

The study of Lentog Tanjung demonstrates that traditional culinary delights cannot be understood solely as cultural products or a community's culinary heritage, but also as representations of knowledge constructed through long-term interactions between humans, experience, and the environment. Through ontological, epistemological, and axiological perspectives, this research demonstrates that the practice of making Lentog Tanjung embodies empirical realities that form the basis for the emergence

of local knowledge, the mechanisms of knowledge construction that develop through experience and intergenerational transmission, and the various values that contribute to the community's social, cultural, economic, and educational life.

The research findings indicate that the process of knowledge formation regarding Lentog Tanjung aligns with the nature of science, particularly in its empirical aspects, creativity, the tentative nature of knowledge, and its connection to social and cultural contexts. Thus, the relationship between local knowledge and science lies not solely in the presence of scientific concepts in cultural practices, but also in the similarities in how this knowledge is constructed, maintained, and interpreted in human life. Furthermore, this research provides the perspective that local wisdom can serve as more than just a source of contextualization for science material. Local wisdom can also serve as a space for reflection to understand the nature of scientific knowledge itself. In the context of science education, utilizing local cultural practices such as Lentog Tanjung has the potential to help students see science as part of life experiences and social practices, not simply a collection of concepts isolated from everyday reality. Therefore, the integration of local wisdom into science learning needs to be directed not only at introducing the scientific concepts contained within it, but also at building a more comprehensive understanding of how knowledge develops, gains legitimacy, and provides meaning to human life.

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