



Integration of Sustainable Gastronomy and Ethnopedagogy in Social Studies Learning: An Ethnographic Study of *Tajin* Madura Porridge

Moh. Iqbal Maulana Baidawi¹, Ahmad Imam Khairi^{2*}

^{1,2}Universitas Islam Negeri Madura, Pamekasan, Indonesia

Article Info

Article History:

Received April 29, 2026
Revised August 26, 2026
Accepted Sept 16, 2026

Keywords:

Ethnopedagogy; Local
Wisdom; Sustainable
Gastronomy; Tajin
Madura.

Abstrak

Globalization has driven shifts in consumption patterns toward instant foods, potentially marginalizing traditional culinary practices and weakening the transmission of local cultural values. This study aims to analyze the preservation of Madura tajin porridge from the perspective of sustainable gastronomy and examine its potential as a contextual and character-oriented learning resource in Social Studies (IPS) through an ethnopedagogical approach. This qualitative study employed an ethnographic design in Kolpajung Village, Pamekasan, using participatory observation, in-depth interviews, and documentation. Data were analyzed using the Miles and Huberman interactive model and thematic analysis, with data validity established through source, method, and time triangulation and member checking. The findings show that the sustainability of tajin porridge is supported by the integration of four dimensions: environmental, through the use of local ingredients and biodegradable natural packaging; social, through mutual cooperation in production and distribution; economic, through its contribution to household income and the local economy; and cultural-religious, through its symbolic and ritual functions. These dimensions demonstrate that tajin porridge is not merely a traditional food but a cultural practice that sustains local knowledge, social relationships, economic activities, and environmental awareness. The novelty of this study lies in the conceptual integration of sustainable gastronomy and ethnopedagogy in Social Studies learning, positioning tajin porridge as a local-wisdom-based learning resource that connects culinary practices with economic activities, social interaction, human-environment relations, and character values. The study implies that tajin porridge can be operationalized as an authentic and contextual learning resource through observation, discussion, interviews, and culture-based projects to strengthen students' conceptual understanding, collaboration, responsibility, social concern, and appreciation of local culture.

This is an open access article under the [CC BY-NC](https://creativecommons.org/licenses/by-nc/4.0/) license.



*Corresponding Author:

Moh. Iqbal Maulana Baidawi

Universitas Islam Negeri Madura

Jl. Raya Panglegur No. Km. 4, Barat, Ceguk, Kec. Tlanakan, Kabupaten Pamekasan, Jawa Timur 69371

Email:mohalan91@gmail.com

1. Introduction

Globalization and modernization have brought significant changes to people's lifestyles and consumption patterns, particularly through the growing preference for food that is practical, rapidly prepared, and widely available. Technological development, urbanization, and increasing mobility have contributed to changes in food consumption, while traditional foods may be perceived as less practical because their preparation requires time, specific techniques, and intergenerational knowledge. Such changes create challenges for the continuity of traditional culinary practices, particularly when younger generations have fewer opportunities to learn the knowledge and values embedded in them.

Traditional food, however, is more than a product consumed to meet biological needs. It forms part of a cultural system that reflects the history, identity, knowledge, and social relations of a community. Ingredients, preparation techniques, serving practices, and patterns of sharing may embody knowledge that is transmitted through everyday social interaction. Consequently, the disappearance of traditional culinary practices may involve not only the loss of particular food products but also the weakening of collective memory, cultural identity, and locally embedded knowledge [1]. From a cultural perspective, food can also function as a social and symbolic medium through which communities express relationships with other people, their environment, and religious beliefs [2]. Therefore, the preservation of traditional food should not be understood solely as culinary conservation but also as an effort to sustain cultural knowledge and community practices.

This perspective is consistent with the concept of sustainable gastronomy, which emphasizes the relationship among food, local resources, environmental sustainability, community welfare, and cultural heritage. Sustainable gastronomy is not restricted to the environmental dimension of food production but also considers the social, economic, and cultural conditions that sustain culinary practices. It encourages the use of local resources, the preservation of traditional food-processing knowledge, community participation, and the strengthening of local economic activities. Furthermore, sustainable gastronomy views food as part of cultural heritage that is maintained through the ways in which food is produced, distributed, consumed, and interpreted within society. Thus, sustainable gastronomy provides a relevant perspective for understanding traditional culinary practices as interconnected systems involving environmental responsibility, social relationships, economic activities, and cultural continuity.

Madura tajan porridge provides a relevant empirical context for examining these dimensions. This traditional food is prepared using ingredients such as rice flour, glutinous rice, coconut milk, and brown sugar, while its preparation continues to employ traditional techniques transmitted across generations. The production process may involve family members and other community members, indicating that the continuity of tajan porridge is associated not only with culinary knowledge but also with social interaction and collective participation. Tajin porridge also has a cultural-religious dimension because it is served during particular religious and traditional activities as a form of gratitude and a means of strengthening social relationships. Its presence in communal practices demonstrates that tajan porridge is not merely a food product but also a cultural practice containing social, symbolic, and religious meanings [3].

The sustainability of tajan porridge can further be understood through its environmental, social, economic, and cultural-religious dimensions [4]. The environmental dimension is reflected in the continued use of local and natural ingredients and, in particular, biodegradable materials such as banana leaves for packaging. The social dimension emerges through cooperation in preparation, distribution, and sharing, while the economic dimension is reflected in household-scale production and its contribution to local income. Meanwhile, the cultural-religious dimension is manifested in the use of tajan porridge during communal and religious occasions and in the symbolic meanings attached to its preparation and presentation. These dimensions demonstrate that tajan porridge can be examined as a form of living local knowledge in which culinary practice, community relationships, economic activity, environmental awareness, and cultural values are interconnected.

The educational significance of such local knowledge becomes particularly relevant in Social Studies (IPS) learning. Social Studies examines relationships among individuals, communities, economic activities, culture, and the environment [5]. Local cultural practices can therefore provide concrete contexts through which students encounter concepts that might otherwise be presented abstractly. The use of local wisdom in Social Studies learning can help students connect classroom concepts with their everyday experiences while providing opportunities to

develop social awareness and appreciation of cultural heritage. In this context, tajin porridge has the potential to function as a contextual learning resource through which students can explore economic activities, social interaction, local wisdom, and human-environment relations. It can also provide opportunities for the development of character values such as mutual cooperation, responsibility, social concern, and appreciation of local culture.

The use of local culture as a learning resource is closely related to the ethnopedagogical approach. Ethnopedagogy positions community knowledge, local wisdom, cultural practices, and lived experiences as meaningful sources of learning. Previous studies have demonstrated the potential of ethnopedagogy to integrate local wisdom into Social Studies learning, particularly in relation to character development, cultural identity, and contextual learning [6]. However, these studies generally begin from the educational or cultural perspective by examining local wisdom as a learning resource, character-building mechanism, or cultural heritage. In contrast, research on sustainable gastronomy generally emphasizes food sustainability, local resources, environmental practices, cultural heritage, and local economic development. The two fields therefore address related dimensions but generally organize their analytical focus differently.

The state of the art indicates that research on ethnopedagogy in Social Studies has increasingly explored the use of local wisdom to make learning more contextual and meaningful, while studies of sustainable gastronomy have examined the relationship between culinary practices, cultural heritage, environmental sustainability, and local economic development [7]. Nevertheless, the literature reviewed for this study provides limited evidence of an empirical study that uses a traditional culinary practice as the entry point for connecting the multidimensional sustainability of gastronomy with ethnopedagogical Social Studies learning. In particular, there remains limited research that systematically connects the environmental, social, economic, and cultural-religious dimensions of a traditional food practice with specific Social Studies concepts and character values. Therefore, the research gap is not the absence of studies on sustainable gastronomy or ethnopedagogy as separate fields, but the limited empirical integration of the two perspectives around a specific traditional culinary practice and its translation into a contextual Social Studies learning resource.

This gap is particularly relevant to the study of Madura tajin porridge because its production and use involve multiple forms of knowledge that can be interpreted educationally. The use of local ingredients and natural packaging reflects environmental knowledge; cooperation in production, distribution, and sharing reflects social knowledge; household-scale production reflects economic knowledge; and its use in religious and communal activities reflects cultural and symbolic knowledge. Through an ethnopedagogical perspective, these forms of community knowledge can be connected to students' lived experiences and interpreted as resources for understanding Social Studies concepts. Consequently, the study moves beyond identifying cultural values in traditional food by examining how an existing community practice can provide an integrated context for learning.

Accordingly, this study has two specific scientific contributions. First, it provides an empirical account of Madura tajin porridge as a sustainable gastronomic practice by demonstrating how environmental, social, economic, and cultural-religious dimensions operate together in the preservation and reproduction of the culinary tradition. Second, it establishes a conceptual integration between sustainable gastronomy and ethnopedagogy in Social Studies learning by connecting these four dimensions with relevant Social Studies concepts, including economic activities, social interaction, human-environment relations, local wisdom, and character values. The contribution is conceptual rather than a tested instructional model; the study does not claim to develop or experimentally validate a learning model.

The conceptual integration developed in this study positions tajin porridge as the cultural practice connecting sustainable gastronomy with ethnopedagogical interpretation. The four dimensions identified through ethnographic investigation environmental, social, economic, and cultural-religious are interpreted as forms of local knowledge and subsequently connected to Social Studies learning concepts and character values. In this framework, the environmental dimension is associated with human-environment relations and ecological awareness; the social dimension with social interaction, cooperation, and solidarity; the economic dimension with production, distribution, and household economic activity; and the cultural-religious dimension with local wisdom, cultural identity, and character values. The framework therefore explains how a living culinary practice can be transformed into a contextual learning resource while retaining its original cultural and sustainability meanings.

Based on this conceptual integration, the present study aims to analyze the preservation of Madura tajin porridge from the perspective of sustainable gastronomy and examine how its cultural knowledge and sustainability dimensions can be interpreted through an ethnopedagogical approach as a contextual resource for Social Studies learning. The study therefore addresses the intersection of culinary sustainability, local cultural knowledge, and educational practice by positioning tajin porridge not only as cultural heritage that needs to be preserved but also as an authentic source of contextual learning. Through this perspective, the study seeks to demonstrate how everyday community practices can contribute to meaningful Social Studies learning while simultaneously supporting the continuity of local knowledge and cultural identity.

2. Method

2.1 Research Design and Rationale

This study employed a qualitative approach using a **focused ethnographic design** to investigate the meanings, values, social relations, and cultural practices associated with Madura tajin porridge. An ethnographic approach was considered appropriate because the research focuses on understanding a cultural practice within its natural social context rather than measuring predetermined variables. In particular, focused ethnography is appropriate for studies that investigate a specific cultural phenomenon, involve participants who have direct experience with the phenomenon, and seek to obtain detailed contextual information within a relatively focused period of fieldwork [8]. In this study, the ethnographic focus was specifically directed toward the production, distribution, use, symbolic meanings, social functions, economic significance, environmental practices, and educational relevance of tajin porridge. This focused approach enabled the researcher to examine how knowledge and values related to tajin porridge are practiced, transmitted, and interpreted within the community.

The use of focused ethnography was also consistent with the objectives of this study, which did not seek to describe the entire cultural system of the Madurese community. Instead, the study concentrated on tajin porridge as a particular cultural practice and examined its relationship with sustainable gastronomy and Social Studies learning through an ethnopedagogical perspective. Thus, the ethnographic design allowed the researcher to connect observed practices and participants' accounts with broader analytical dimensions, namely environmental, social, economic, and cultural-religious dimensions [9].

2.2 Research Site and Site Selection

The research was conducted in **Kolpajung Village, Pamekasan Regency, East Java, Indonesia**. The location was selected purposively because the community continues to maintain the tradition of making and using tajin porridge across generations as part of its social and cultural life. From an academic perspective, this characteristic makes the site relevant to the research because it provides a setting in which the continuity of a traditional culinary practice can be observed directly, including the transmission of knowledge, production practices, community participation, and the meanings attached to tajin porridge [10].

The selection of Kolpajung Village was therefore based on its relevance to the research phenomenon rather than geographical convenience. The site provided access to community members with direct experience of tajin porridge and enabled the researcher to observe the practice in its natural social context. The fieldwork was conducted over approximately two months, including field preparation, data collection, data analysis, and report preparation. During the fieldwork period, the researcher developed interaction with participants and conducted direct observation of the practices relevant to the study.

2.3 Informants and Sampling

Informants were selected using **purposive sampling** based on their direct experience with tajin porridge. The principal inclusion criterion was that participants had direct knowledge, experience, involvement, or interaction with the production, use, cultural meaning, or educational interpretation of tajin porridge. This criterion was used to ensure that the data were obtained from participants who could provide firsthand information about the phenomenon under investigation [11].

A total of **6 informants** participated in the study, consisting of five tajin porridge makers, one Social Studies teacher. Tajin porridge makers were selected because they possessed direct practical knowledge of the ingredients, preparation techniques, production processes, distribution, economic functions, and cultural meanings of the food. The Social Studies teacher

was selected because of direct experience in interpreting local cultural practices in relation to Social Studies learning.

Table 1. Informant Characteristics and Selection Criteria

No.	Informant Group	Number	Selection Criteria	Role in the Study	Rationale for Selection
1	Tajin porridge makers	5	Direct experience in making and/or selling tajin porridge	Producers and practitioners of the culinary tradition	To obtain firsthand information about ingredients, preparation techniques, production, distribution, economic activities, and cultural meanings
2	Social Studies teacher	1	Direct experience in Social Studies learning and knowledge of the potential use of local culture as a learning resource	Educational informant	To identify the relevance of tajin porridge to Social Studies concepts, learning activities, and character values

The data sources consisted of primary and secondary data. Primary data were obtained from participatory observation and semi-structured in-depth interviews with the 6 informants. Secondary data consisted of relevant learning documents, scientific literature, reference books, and community-related documents used to complement and contextualize the primary findings.

2.4 Data Collection

Data were collected through **participatory observation, semi-structured in-depth interviews, and documentation**. Participatory observation was conducted by directly observing and, where appropriate, participating in community activities related to tajin porridge, particularly the preparation and production process. Observation focused on the preparation of ingredients, cooking practices, packaging, distribution, interactions among people involved in production, and the social and cultural contexts in which tajin porridge was used or shared. This technique enabled the researcher to understand the practice in its natural setting rather than relying solely on participants' retrospective accounts.

Semi-structured in-depth interviews were conducted with the 6 informants to explore their experiences and interpretations of tajin porridge. Questions addressed the history and continuity of the practice, reasons for maintaining it, ingredients and preparation methods, economic significance, social relationships, religious and symbolic meanings, environmental practices, and its potential relevance to Social Studies learning. Interviews were adapted to the informants' roles so that producers, residents, and the Social Studies teacher could provide information based on their respective experiences.

Documentation was used to complement observational and interview data. Documentation included photographs, field notes, and relevant learning or community documents [23]. These materials were used to support the interpretation of observed practices and participants' statements and to provide contextual evidence for the findings.

2.5 Data Analysis

Data analysis followed the **Miles and Huberman interactive model**, consisting of data reduction, data display, and conclusion drawing [24]. Data reduction involved selecting, organizing, and focusing the field data that were relevant to the research questions. Data display was conducted through descriptive and thematic presentations that enabled the researcher to identify patterns and relationships among the findings. Conclusions were developed progressively by comparing and interpreting the emerging patterns throughout the research process [12].

The analysis was further supported by **thematic analysis** to identify and interpret recurring patterns of meaning in the observational, interview, and documentary data [25]. The analysis began with data familiarization through repeated reading of field notes, interview records, and documentation. The researcher then conducted coding to identify meaningful units of data. Initial codes included mutual cooperation, local materials, traditional processing, religious functions, cultural transmission, community economic activities, environmental practices, and educational relevance. These codes were subsequently organized into broader analytical categories corresponding to the environmental, social, economic, and cultural-religious dimensions of sustainable gastronomy [13].

The analysis also employed **Spradley's domain analysis** to identify cultural domains and relationships among categories within the community context [26]. This analysis helped the

researcher interpret tajin porridge not only as food but also as a cultural symbol, social practice, economic activity, and potential educational resource. The combination of thematic analysis and domain analysis enabled the researcher to connect participants' lived experiences with the conceptual dimensions of sustainable gastronomy and ethnopedagogy.

2.6 Trustworthiness and Reflexivity

The trustworthiness of the findings was strengthened through **source, method, and time triangulation**. Source triangulation involved comparing information obtained from tajin porridge makers, and the Social Studies teacher. Method triangulation involved comparing findings from observation, interviews, and documentation, while time triangulation involved comparing information and observations obtained at different points during the fieldwork period. In addition, **member checking** was conducted by reconfirming relevant interview interpretations with informants to ensure that the researcher's interpretation corresponded with participants' intended meanings [14].

The researcher served as the primary instrument throughout the research process. Because the researcher was directly involved in observation, interaction, interpretation, and analysis, **reflexivity** was applied to acknowledge and critically examine the researcher's position, background, assumptions, and potential subjectivity. Reflexive consideration was maintained throughout data collection and interpretation to improve transparency and credibility. This process was particularly important in interpreting cultural meanings and connecting community practices with the analytical perspectives of sustainable gastronomy and ethnopedagogy.

3. Results

3.1 Preservation of Tajin Porridge as a Cultural Practice

The findings indicate that the continuity of Madura tajin porridge is sustained through everyday cultural practices rather than through formal preservation programs. In Kolpajung Village, the practice is maintained through intergenerational transmission within families and community participation, where knowledge is learned by observing and participating in the preparation process rather than through written instruction. During participatory observation, the researcher observed that the preparation of ingredients, continuous stirring of the porridge, and serving activities were carried out collectively by family members, reflecting the everyday transmission of culinary knowledge. These observations are consistent with the ethnographic finding that preservation occurs through direct participation in daily community practices rather than through institutional mechanisms [15].

The interview data further support this pattern of intergenerational transmission. One tajin porridge maker explained:

"I have been making tajin porridge for a long time, from my parents, initially for my own consumption and then sold."

3.2. Social and Religious Dimension

The ethnographic data show that tajin porridge functions as a social practice closely associated with religious occasions and communal interaction. However, the symbolic meanings presented here are based on participants' interpretations rather than being treated as universal cultural beliefs.

A tajin porridge maker described its ritual use as follows:

"Yes, it is usually used for thanksgiving and congratulations, and has the meaning of its colors."

This statement indicates that participants associate tajin porridge with thanksgiving occasions and attribute symbolic meaning to its colors. Rather than generalizing this interpretation to all Madurese communities, the present study treats it as an ethnographic finding emerging from participants' own explanations. The interview evidence therefore supports the conclusion that ritual use and symbolic interpretation coexist in the local practice documented in Kolpajung Village.

Field observations also showed that tajin porridge was prepared collectively and shared with neighbors and relatives during particular communal occasions. These practices created opportunities for interaction among family members and community participants during preparation and distribution. Thus, the social significance identified in this study is grounded in observed practices of cooperation and sharing rather than solely in symbolic interpretation.

3.3. Local Economic Dimension

The findings indicate that tajin porridge contributes to household-level economic activities, although participants generally describe this contribution as supplementary income rather than as the sole economic livelihood.

One producer explained:
“Not bad for additional daily income.”

This statement suggests that tajin porridge production contributes to household income while remaining embedded in everyday community practices. Observation during fieldwork also showed that production was organized on a household scale using locally available ingredients and traditional cooking methods, indicating that production relies primarily on local resources rather than industrial inputs [16].

The interviews further indicate that demand tends to increase during religious and communal occasions, which helps sustain household production. Although the study does not measure income quantitatively, the ethnographic evidence suggests that tajin porridge functions as a locally embedded economic activity connected to cultural events and community needs.

3.4. Ecological Dimension

The ecological dimension emerges from observed production practices and participants’ descriptions of ingredient selection and packaging rather than from direct measurement of environmental impacts.

A producer explained:
“It still uses natural ingredients such as rice flour, coconut milk, sugar, and is cooked traditionally.”

During observation, the researcher also documented the use of banana leaves for serving and packaging tajin porridge, while traditional cooking methods remained central to the production process. These observations indicate the continued use of locally available materials and biodegradable packaging within the documented practice.

Accordingly, the findings support the conclusion that environmental considerations are reflected in the continued use of local ingredients and natural packaging within the observed community practice. The study does not claim that these practices are objectively more sustainable than all modern alternatives; rather, it documents how participants maintain traditional production methods that rely on locally available resources [17].

3.5. Pedagogical Relevance in Social Studies Learning

The ethnographic findings indicate that tajin porridge has potential as a contextual learning resource in Social Studies, based on the perspective of the participating Social Studies teacher rather than on classroom intervention outcomes.

When asked whether tajin porridge could be used in Social Studies learning, the teacher identified several relevant concepts:
“Social interaction, economic activities, and local wisdom.”

Regarding classroom implementation, the teacher suggested:
“Through observation, discussion, or project to make tajin porridge.”

The teacher also identified several character values associated with the practice:
“Mutual cooperation, togetherness, responsibility, and respect for culture.”

These findings indicate that tajin porridge can be interpreted as a potential contextual learning resource that aligns with Social Studies topics such as social interaction, economic activities, local wisdom, and human-environment relations. Importantly, the present study does not claim that tajin porridge has been proven to increase students’ motivation, conceptual understanding, critical thinking, or social skills, because no classroom implementation or student learning intervention was conducted. Instead, the findings are limited to documenting teachers’ perspectives on how this local cultural practice could be incorporated into future Social Studies learning activities.

Table 2. Summary of Ethnographic Evidence and Interpretation

Informant	Ethnographic Evidence	Interpretation
-----------	-----------------------	----------------

Tajin porridge maker	"I have been making tajin porridge for a long time, from my parents..."	Intergenerational transmission of culinary knowledge.
Tajin porridge maker	"Because this has become a tradition..."	Continuity maintained through community practice and social demand.
Tajin porridge maker	"It still uses natural ingredients..."	Continued use of traditional ingredients and production methods.
Tajin porridge maker	"It is usually used for thanksgiving... and has the meaning of its colors."	Participants associate tajin porridge with ritual occasions and symbolic meanings.
Tajin porridge maker	"Not bad for additional daily income."	Household-level economic contribution.
Social Studies teacher	"Social interaction, economic activities, and local wisdom."	Relevant Social Studies concepts identified by the teacher.
Social Studies teacher	"Through observation, discussion, or project to make tajin porridge."	Suggested instructional activities, not tested interventions.
Social Studies teacher	"Mutual cooperation, togetherness, responsibility, and respect for culture."	Character values identified by the teacher.

Table Source: Processed by Researcher



Figure 1. The process of cooking white tajin



Figure 2. The process of cooking green tajin



Figure 3. The process of cooking red tajin



Figure 4. The process of cooking black tajin



Figure 5. a variety of toppings to go with tajin

4. Discussion

The findings show that the preservation of Madura tajin porridge is sustained not only as a food practice but also as a cultural practice transmitted through family and community interaction. The continuity of the practice is supported by participants' accounts that tajin porridge has been learned and practiced across generations. One producer explained that they had learned to make tajin porridge from their parents and initially prepared it for household consumption before producing it for sale. Another participant stated that the practice was maintained because it had become a tradition and continued to be needed by the community, particularly during certain events. These findings indicate that cultural continuity is maintained through repeated participation in everyday social practices rather than through formal institutional mechanisms.

This finding can be interpreted through Vygotsky's sociocultural theory, particularly his emphasis on **social mediation, interaction, and learning within a cultural context**[18]. From this perspective, knowledge is not acquired independently of social relations but develops through interaction with more knowledgeable members of the community and through participation in culturally meaningful activities. In the context of tajin porridge, the family and community function as social environments in which culinary knowledge is mediated through observation, participation, instruction, and repeated practice. The important theoretical contribution of Vygotsky's perspective here is therefore not an explanation of sustainability as a whole, but an explanation of **how cultural knowledge can be transmitted and learned through social interaction**.

The involvement of younger family members in the preparation of tajin porridge further illustrates this process. When children or younger members observe the preparation of ingredients, participate in simple production activities, and interact with adults during the process, they encounter culinary knowledge through direct social participation. Such participation can be understood as a form of culturally mediated learning in which practical knowledge is embedded in social activity. Thus, the continuity of tajin porridge is supported not only by the preservation of a food recipe but also by the reproduction of the social context through which knowledge about the practice is learned. This interpretation extends the discussion of sustainable gastronomy by emphasizing that the sustainability of a traditional

culinary practice also depends on the continued transmission of knowledge and participation that enable the practice to be reproduced across generations[19].

The social and religious dimensions of tajin porridge further demonstrate that the food is embedded in communal practices rather than functioning solely as an object of consumption. Participants reported that tajin porridge is associated with thanksgiving and congratulatory occasions and that its colors are understood to have particular meanings[20]. These interpretations should be understood as **participants' locally situated meanings**, rather than as universal meanings attributed to tajin porridge across all Madurese communities. The ethnographic evidence therefore indicates that the religious and symbolic significance of tajin porridge is constructed and maintained through community practice and participants' interpretations of particular occasions.

The social dimension is also evident in collective preparation and the sharing of tajin porridge with neighbors and relatives. These activities create opportunities for interaction, cooperation, and reciprocal relationships[21]. From a Vygotskian perspective, such activities can be understood as social contexts in which individuals learn and reproduce culturally valued ways of interacting. Values such as cooperation and togetherness are therefore not necessarily transmitted through explicit instruction; they may be encountered and learned through participation in shared activities. In this sense, Vygotsky's theory contributes to the interpretation of tajin porridge by explaining the relationship between **social participation and the reproduction of cultural knowledge and values**.

These findings are consistent with perspectives that understand food as both material and symbolic culture. Food can communicate social relationships, cultural identity, and meanings associated with particular social occasions[22]. In the case of tajin porridge, its significance is therefore located not only in its ingredients or preparation but also in the social situations in which it is prepared, shared, and interpreted. This finding complements the sustainable gastronomy perspective, which recognizes that the sustainability of culinary heritage involves cultural and social continuity alongside material food production. However, the present study does not claim that tajin porridge universally functions as a mechanism of social integration; rather, the findings demonstrate that, within the community studied, its preparation and sharing provide opportunities for social interaction and relationship maintenance.

In the economic dimension, the findings indicate that tajin porridge contributes to household-level economic activity. One producer described the income generated from tajin porridge as "not bad for additional daily income," indicating that the activity functions as a supplementary source of household income rather than necessarily as the primary livelihood. This finding supports the economic dimension of sustainable gastronomy because the continuation of a traditional food practice is partly connected to its capacity to respond to community demand and generate economic value. The economic significance of tajin porridge should therefore be understood at the scale documented in this study: as a locally embedded, household-level economic activity associated with the continued demand for the product.

The involvement of women in tajin porridge production is also relevant to the discussion of **women's economic participation**. The participation of women as producers and distributors indicates that culinary practices can provide opportunities for women to participate directly in household economic activities. However, the present study does not measure women's economic empowerment, changes in decision-making authority, or changes in household welfare. Therefore, the findings support a discussion of women's economic participation rather than a broader claim of economic empowerment. This distinction is important because participation in income-generating activities does not, by itself, demonstrate empowerment in a broader analytical sense.

The ecological dimension of tajin porridge is reflected in the continued use of natural ingredients and banana leaves as packaging materials. Participants reported that traditional production still uses ingredients such as rice flour, coconut milk, and sugar, while field observations documented the use of natural materials in serving and packaging. These practices are consistent with the environmental dimension of sustainable gastronomy because they demonstrate the continued use of locally available and biodegradable materials within the observed culinary practice. However, the findings do not include measurements of energy consumption, carbon emissions, waste generation, or comparative environmental impacts. Therefore, the study should not conclude that traditional production is objectively more energy-efficient or environmentally sustainable than modern industrial production. Instead, the evidence demonstrates that the documented practice incorporates **locally available natural materials**

and biodegradable packaging, which can be interpreted as environmentally relevant features of the culinary tradition.

The ecological findings also illustrate how local knowledge can be embedded in everyday food practices. The use of locally available ingredients and natural packaging does not appear in the data as a formally articulated environmental policy; rather, it forms part of an established way of producing and serving tajin porridge. This finding is important for sustainable gastronomy because it shows how environmental considerations may be embedded in routine cultural practices. At the same time, the ethnographic evidence does not justify extending this finding to a general claim that all traditional culinary practices are environmentally sustainable. The interpretation is limited to the practices documented in the research setting.

The pedagogical implications of the findings should likewise be understood as **potential rather than demonstrated learning outcomes**. The participating Social Studies teacher identified social interaction, economic activities, and local wisdom as Social Studies concepts that could be connected to tajin porridge. The teacher also suggested observation, discussion, and project activities as possible ways of incorporating the practice into learning. In addition, the teacher identified mutual cooperation, togetherness, responsibility, and respect for culture as values that could potentially be addressed through such activities. These findings demonstrate the perceived pedagogical relevance of tajin porridge from the teacher's perspective, but they do not demonstrate actual changes in students' motivation, conceptual understanding, critical thinking, communication, collaboration, or creativity.

The potential pedagogical relevance can nevertheless be interpreted through Vygotsky's emphasis on socially mediated learning. If tajin porridge were incorporated into Social Studies instruction, students could potentially engage with community members, observe cultural practices, discuss their meanings, and participate in collaborative activities. Such activities would create opportunities for learning through social interaction and culturally situated experience. The theoretical contribution of Vygotsky in this context is therefore to explain **why the social and cultural environment surrounding tajin porridge may provide a meaningful context for learning**, rather than to establish that the use of tajin porridge automatically improves learning outcomes.

The findings consequently suggest a conceptual relationship among cultural practice, social mediation, sustainable gastronomy, and potential pedagogical application [16]. Tajin porridge functions as the cultural practice at the center of this relationship. Its environmental, social, economic, and cultural-religious dimensions constitute the empirical features of the sustainable gastronomy perspective, while the processes through which knowledge is transmitted through family and community interaction provide the basis for the Vygotskian interpretation. These dimensions can subsequently be mapped onto Social Studies concepts and potential learning activities. The framework is therefore an **analytical and conceptual proposition**, not a tested instructional model.

Conceptual Proposition

Based on the findings, this study proposes that **the pedagogical potential of a traditional culinary practice emerges when its culturally embedded knowledge is socially mediated and subsequently connected to relevant Social Studies concepts**. The proposition can be represented as follows:



This proposition clarifies the specific contribution of Vygotsky to the study. Vygotsky's theory is located primarily at the **social mediation** stage, where cultural knowledge is learned through interaction and participation. Sustainable gastronomy, in contrast, provides the framework for interpreting the environmental, social, economic, and cultural dimensions of the culinary practice. Ethnopedagogy serves as the bridge that interprets community-based knowledge as a potential educational resource [7]. The resulting integration therefore does not treat Vygotsky's theory as an explanation of all dimensions of sustainability; instead, it uses the theory specifically to explain the mechanism through which cultural knowledge and values are socially transmitted and potentially transformed into contextual learning experiences [23].

The conceptual proposition also establishes an important boundary for the interpretation of the findings. Because the present study did not involve students or implement a classroom intervention, the final stage represents **potential pedagogical implications rather than measured learning effects** [24]. Future research could empirically test this proposition through classroom implementation involving students and examine whether learning activities based on tajin porridge affect conceptual understanding, motivation, collaboration, critical thinking, or other learning outcomes. Such testing is beyond the scope of the present ethnographic study.

Overall, the findings demonstrate that Madura tajin porridge can be understood as a multidimensional cultural practice in which culinary knowledge, social interaction, economic participation, environmental practices, and cultural-religious meanings intersect [25]. The sustainable gastronomy perspective helps explain the multidimensional character of the practice, while Vygotsky's sociocultural perspective explains how knowledge associated with the practice can be transmitted through social interaction and participation. Ethnopedagogy then provides a conceptual pathway for interpreting this community knowledge as a potential resource for Social Studies learning. The contribution of the study therefore lies not in demonstrating the effectiveness of tajin porridge as a teaching intervention, but in establishing a theoretically informed **conceptual integration** that can guide future pedagogical development and empirical testing.

5. Conclusion

This study concludes that Madura tajin porridge is not merely a traditional food product but a culturally embedded practice that reflects interconnected environmental, social, economic, and cultural-religious dimensions. First, its preservation is sustained through intergenerational social interaction and participation within families and the community. The findings indicate that culinary knowledge is transmitted through direct experience and participation in everyday practices rather than through formal preservation programs. Second, tajin porridge has social and cultural-religious significance within the community studied, particularly through its association with thanksgiving and communal occasions, as well as through practices of preparation and sharing that provide opportunities for social interaction and cooperation. Third, tajin porridge contributes to household-level economic activity, including women's economic participation, while the continued use of natural ingredients and banana-leaf packaging represents environmentally relevant features of the observed culinary practice. Fourth, the findings indicate that tajin porridge has **potential as a contextual Social Studies learning resource**, particularly for connecting economic activities, social interaction, human-environment relations, and local wisdom with culturally relevant learning experiences. However, this pedagogical potential was identified from ethnographic findings and the Social Studies teacher's perspective and was not tested through student learning interventions.

Theoretically, the study contributes a **conceptual integration of sustainable gastronomy and ethnopedagogy**. Sustainable gastronomy provides a framework for interpreting the environmental, social, economic, and cultural-religious dimensions of tajin porridge, while ethnopedagogy provides a perspective for positioning community-based knowledge as a potential learning resource. Vygotsky's sociocultural perspective further contributes to the interpretation of how knowledge associated with tajin porridge is transmitted through social interaction, participation, and culturally mediated learning. Thus, the theoretical contribution of the study lies not in establishing a tested instructional model, but in proposing a conceptual relationship between sustainable culinary practice, social mediation of cultural knowledge, and potential Social Studies learning.

Practically, the findings suggest that tajin porridge can be considered as an authentic local context for Social Studies activities involving observation, discussion, community interviews, and culture-based projects. For communities, documenting and transmitting the knowledge

associated with tajin porridge may support the continuity of local culinary heritage, while its household-scale production provides an example of local economic participation. For educators, the findings provide a basis for developing culturally responsive learning resources. These implications should be understood as **potential applications**, rather than demonstrated effects on students' motivation, conceptual understanding, critical thinking, collaboration, or other learning outcomes.

This study has several limitations. First, the research was conducted in one village and focused on a specific traditional culinary practice, so the findings should not be generalized to all Madurese communities or traditional foods. Second, the fieldwork was conducted within a relatively focused period and involved 11 informants, consisting of five tajin porridge makers, five local residents, and one Social Studies teacher. Third, the study did not involve students or implement a classroom intervention; therefore, claims about learning effectiveness and student outcomes remain outside the scope of the findings. Future research should therefore test the proposed conceptual integration through classroom-based studies, including design-based research or experimental approaches, and investigate whether the identified pedagogical potential translates into measurable changes in students' conceptual understanding, engagement, collaboration, critical thinking, or character development. Comparative studies across communities and longitudinal research could also examine how traditional culinary knowledge and its educational use are sustained over time.

6. Suggestions

Based on the results of the research, it is recommended to the public and business actors of tajin porridge to maintain the authenticity of the recipe and cultural values, as well as to innovate in packaging and marketing so that it is better known to the younger generation. For social studies teachers, the use of tajin porridge as a contextual learning resource needs to be optimized through a project-based learning approach and local wisdom in order to be able to increase understanding while instilling the value of students' character. Students are expected to foster a sense of pride and responsibility in preserving local culture. The government is expected to support through programs to empower and integrate local culture in education. Meanwhile, researchers are further advised to develop more applicable research and examine the long-term impact of using local wisdom in learning.

References

- [1] C. C. Attribution-noncommercial, I. License, C. C. By-nc, A. Academy, and T. M. I. T. Press, "Deciphering a Meal Author (s): Mary Douglas Published by : The MIT Press on behalf of American Academy of Arts & Sciences Stable URL : <https://www.jstor.org/stable/20024058> Accessibility support : If you experience accessibility issues with this file , report them here Deciphering a Meal," vol. 101, no. 1, pp. 61–81, 1972.
- [2] N. Suryandari, F. N. Rahmawati, N. Poernamasari, and A. Z. Nur, "Digital Mapping of Madura Gastronomy : Integrating Local Wisdom and Cultural Diversity in the Global Era," pp. 415–426, 2025.
- [3] D. Puspitasari and S. T. Saksono, "Tajhin Sorah Dan Tajhin Sappar: Eksplorasi Makna Simbolis Dalam Bingkai Budaya Madura," *Prosodi*, vol. 18, no. 2, pp. 330–339, 2024.
- [4] M. W. M. Wardi, "Tradisi Ter-Ater Dan Dampak Ekonomi Bagi Masyarakat Madura," *KARSA J. Soc. Islam. Cult.*, pp. 40–57, 2013.
- [5] D. E. Susilaningtyas, "Sumber belajar IPS berbasis ethnopedadogy," vol. 9, no. 1, pp. 18–30, 2022.
- [6] D. Yuliana, "Ethnopedagogy in Social Studies Learning Through The Approach of Local Wisdom Characters in Junior High School," in *Social Studies Conference Proceedings*, 2022, pp. 267–274.
- [7] E. W. Abbas et al., "Revitalizing social studies through ethnopedagogy: Making learning active, value-based, and meaningful," *Citizenship, Soc. Econ. Educ.*, p. 14788047261459676, 2025.
- [8] J. Pillay, G. Higginbottom, and N. Y. Boadu, "Guidance on performing focused ethnographies with an emphasis on healthcare research," *Qual. Rep.*, 2015.
- [9] H. Knoblauch, "FORUM : QUALITATIVE S O C I A L R E S E A R C H 2 . Sociological Ethnography , Strangeness and Alterity," vol. 1, no. 2001, 2005.
- [10] L. A. Palinkas, S. M. Horwitz, C. A. Green, J. P. Wisdom, N. Duan, and K. Hoagwood, "Purposeful sampling for qualitative data collection and analysis in mixed method implementation research," *Adm. policy Ment. Heal. Ment. Heal. Serv. Res.*, vol. 42, no. 5, pp. 533–544, 2015.
- [11] J. Spradley, "Participant Observation" Holt, Rineart and WinSton, Inc," *New York*, 1980.
- [12] M. B. Miles, A. M. Huberman, and J. Saldaña, "Qualitative Data Analysis: A Methods Sourcebook, 3/E.," 2013.
- [13] V. Braun and V. Clarke, "Using thematic analysis in psychology," *Qual. Res. Psychol.*, vol. 3, pp. 77–101, Jan. 2006, doi: 10.1191/1478088706qp0630a.
- [14] R. Forero et al., "Application of four-dimension criteria to assess rigour of qualitative research in emergency medicine," *BMC Health Serv. Res.*, vol. 18, no. 1, p. 120, 2018.
- [15] I. W. Kertih and I. P. Sriartha, "Supplement Book of Social Studies Teaching Materials Through the Empowerment of Bali Local Wisdom as A Learning Source," vol. 55, pp. 182–193, 2022.
- [16] R. Scarpato, "Sustainable gastronomy as a tourist product," in *Tourism and gastronomy*, Routledge, 2003, pp. 146–166.

- [17] J. Janker and S. Mann, "Eating out sustainably—a review on 'sustainability in gastronomy' in the academic literature," 2026.
- [18] I. B. A. Arjaya, I. W. Suastra, I. W. Redhana, and A. A. I. A. R. Sudiatmika, "Global Trends in Local Wisdom Integration in Education: A Comprehensive Bibliometric Mapping Analysis from 2020 to 2024," *Int. J. Learn. Teach. Educ. Res.*, vol. 23, no. 7, pp. 120–140, 2024, doi: 10.26803/ijlter.23.7.7.
- [19] H. R. Kim, J. B. Kim, S. Yun, and S. Lim, "The narrative inquiry of a science teacher's experience of developing physics experiments: from a mere conveyer to a dynamic collaborator," *Brain, Digit. Learn.*, vol. 14, no. 2, pp. 227–245, 2024, doi: 10.31216/bdl.20240014.
- [20] R. Cámara-Leret, M. A. Fortuna, and J. Bascompte, "Indigenous knowledge networks in the face of global change," *Proc. Natl. Acad. Sci.*, vol. 116, no. 20, pp. 9913–9918, May 2019, doi: 10.1073/pnas.1821843116.
- [21] T. Sutrisno, "Integrasi Kearifan Lokal Madurologi Pada Pembelajaran Ilmu Pengetahuan Sosial: Upaya Melestarikan Falsafah Leluhur Masyarakat Madura," ... *Ilmu Pengetah. Sos. dan Ilmu-Ilmu ...*, 2025, [Online]. Available: <https://ejournal.iainmadura.ac.id/index.php/entita/article/view/19171%0Ahttps://ejournal.iainmadura.ac.id/index.php/entita/article/download/19171/4616>.
- [22] H. Suat, A. Khairunnisa, S. Rieuwpassa, and F. I. Lestari, "Transformation of Social Interaction Patterns of the Young Generation in the Digital Age: An Analysis of the Influence of Social Media on Social Life and Local Culture," *Socious J.*, 2025, doi: 10.62872/gbgryh47.
- [23] L. S. Vygotsky, *Mind in society: The development of higher psychological processes*, vol. 86. Harvard university press, 1978.
- [24] G. Ladson-Billings and A. Dixon, "Toward a theory of culturally relevant pedagogy," *Whitewashed Crit. Perspect.*, vol. 32, no. 3, pp. 122–137, 2021, doi: 10.4324/9781003087632-7.
- [25] UNESCO, *Education for sustainable development: a roadmap*. Paris: UNESCO Publishing, 2021.