

Management of Strengthening Student Independence Through Craft Learning by Making Tempe (Qualitative Descriptive Study at SMK Al Ahmad, Warungkondang District)

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ABSTRACT

Local values play a strategic role in shaping the character and identity of students, especially in the context of Vocational High Schools (SMK) which prepare students to enter the workforce while maintaining local cultural roots. In Warungkondang District, Cianjur Regency, the tradition of making tempeh has become part of the community's life which is rich in cultural values such as mutual cooperation, hard work, responsibility, and independence. However, in learning practices at SMK Al Ahmad, this local potential has not been fully integrated into the curriculum, especially in the Arts and Crafts (SBDP) subject. In fact, learning based on local wisdom can strengthen the relevance and meaningfulness of the education process. This study aims to analyze how craft learning by making tempeh can strengthen local values and foster student independence. The study used a qualitative approach with a case study method. The subjects of the study included SBDP teachers and grade X students at SMK Al Ahmad. Data collection techniques were carried out through observation, in-depth interviews, and documentation. Data analysis used the Miles and Huberman model which includes data reduction, data presentation, and drawing conclusions. The results of the study showed that project-based craft learning of making tempeh carried out in a participatory and contextual manner had a positive impact on strengthening students' independent character. Students showed increased ability in planning, making decisions, solving problems, and increasing self-confidence and responsibility. Strengthening local values through the learning process also fosters appreciation for regional culture and strengthens the relationship between schools and communities. Thus, the integration of local wisdom in craft learning is proven to not only enrich students' learning experiences, but also be an effective strategy in character building. This model can be replicated and developed in other contexts as a contribution to contextual, transformative, and sustainable education.

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1. INTRODUCTION

Education is not only tasked with making the nation's life intelligent in a cognitive sense, but also forming the character and personality of students. In the current reality of education, character formation is a challenge in itself, especially in the midst of globalization and the penetration of foreign cultures. One potential approach in answering this challenge is strengthening local values as part of the learning process.

Vocational High Schools (SMK) as educational institutions that prepare students to enter the workforce also have a responsibility in shaping students' characters. Independence is one of the main characters that need to be developed in SMK students. Independence not only includes the ability to make decisions, but also includes a sense of responsibility, the ability to manage time, and initiative in solving problems.

Local wisdom is a form of cultural wealth that lives and develops in society. One form of local wisdom that still survives in Warungkondang, Cianjur Regency is the tradition of making tempeh. This activity is not only a food production process, but also a process that involves educational and cultural values such as perseverance, cooperation, discipline, and responsibility.

However, this potential has not been utilized optimally in learning at SMK Al Ahmad. Teaching and learning activities are still centered on conventional learning that has not touched on local aspects that are relevant and meaningful to students. This causes students to lack contextual learning experiences that can develop their character.

Based on this background, this study aims to explore how the management of craft learning that integrates tempeh making can strengthen student independence.

Literature review

Local Values in Education

Local values are a set of norms, habits, customs, and social practices that grow and develop in a particular community environment. These values reflect local wisdom that has been formed through historical processes and collective experiences of a community. Because they originate from the real life of the community, local values have high educational potential if integrated into the learning process at school. Through the introduction and internalization of these values, students can understand the meaning of living in society, learn to appreciate their own culture, and develop characters that are appropriate to their social context.

According to Sutarjo (2016:27), education based on local values can strengthen students' character and identity. He explained that "education based on local values can make learning more contextual, not uprooted from cultural roots, and can foster a sense of pride in identity as part of the local community." Thus, education not only functions as a means of transferring knowledge, but also as a medium for preserving culture and character formation based on local wisdom.

Integration of local values in learning also supports a holistic educational approach, as it encompasses the cognitive, affective, and psychomotor dimensions of students simultaneously. Values such as mutual cooperation, responsibility, honesty, independence, and love of the environment, when contextualized in the learning process, can shape students' strong personalities and be rooted in the nation's culture.

Local wisdom-based learning is a strategy that places local culture, customs, and values as the basis for the approach in the teaching and learning process. According to Tilaar (2009:45), learning that is rooted in local culture will be more meaningful and relevant to students because it is based on real experiences and is close to their lives. Tilaar emphasized that education that is disconnected from local culture tends

to be artificial and fails to build students' identity. This kind of learning not only enriches students' knowledge, but also strengthens their love for their country, local identity, and awareness of the importance of preserving culture. Therefore, local wisdom is not only an ornament in education, but also an important foundation in shaping students' character and meaning of learning.

Making Tempeh as an Educational Medium

One real form of integration of local wisdom in learning is through making tempeh. Tempeh is not only known as a traditional food that is highly nutritious, but also full of educational value. This activity covers various aspects of learning: from the cognitive side, students learn about the biological process of soybean fermentation and the nutritional aspects of tempeh; from the psychomotor side, students are directly involved in soaking, boiling, draining, wrapping, and fermentation activities; and from the affective side, students are required to demonstrate discipline, cooperation, accuracy, and responsibility in completing the process of making tempeh.

According to Prasetyo & Wijayanti (2015:119), making tempeh is a very effective educational media because it combines direct practice, strengthening character values, and preserving local culture. They emphasized that this kind of learning is able to build strong connections between students and their socio-cultural environment, while providing meaningful, contextual learning.

One of the important outcomes of project-based learning such as making tempeh is the growth of student independence. In the context of education, independence does not just mean that students learn by themselves, but includes the ability to organize, direct, monitor, and evaluate the learning process independently. This concept is known as self-regulated learning.

Zimmerman (2000:14) explains that self-regulated learning is an active process in which students set learning goals, choose strategies to achieve them, monitor progress, and reflect on their success or failure. He added that learning independence is a key indicator of effective and sustainable learning. By engaging in projects such as making tempeh, students practice making plans, dividing tasks, solving problems, and evaluating results—all of which are learning processes that support self-regulated learning in real terms. Wulandari (2018) and Haris & Suryani (2020) showed that local culture-based learning increases active student involvement, forms a sense of responsibility, and increases self-confidence.

2. METHODS

This study uses a qualitative approach with a case study design, which aims to deeply understand the process of learning crafts based on making tempeh in schools. The study was conducted at SMK Al Ahmad, Warungkondang District, with research subjects including teachers of Arts, Culture and Crafts (SBDP) and class X students who were directly involved in learning activities.

Data collection technique

To obtain comprehensive data, several data collection techniques are used as follows:

Observation: Conducted directly to observe the learning process, starting from the planning stage, implementation of tempeh making activities, to evaluation of learning outcomes.

Interviews: In-depth interviews were conducted with teachers and students to explore their perceptions of the learning experience, the meaning of local values, and reflections on the learning that took place.

Documentation: Collecting supporting documents such as RPP (Learning Implementation Plan), student activity notes, activity photos, and learning products in the form of tempeh made by students.

Data Analysis Techniques

Data analysis was carried out using the interactive model from Miles and Huberman (1994:10) which consists of three main stages:

Data Reduction: The process of filtering raw data into relevant data, by sorting, summarizing, and simplifying the results of observations, interviews, and documentation.

Data Presentation: Reduced data is presented in narrative form, tables, and direct quotations so that it can be analyzed thematically and comprehensively.

Drawing Conclusions/Verification: This is done by examining emerging patterns, connecting data, and verifying conclusions by matching data from various sources (triangulation).

Data Validity Test

Data validity was ensured through triangulation of sources, techniques, and time, as well as through member checks and peer debriefing.

3. FINDINGS AND DISCUSSION

Learning Planning

Teachers prepare lesson plans with a PjBL approach and local wisdom themes. Learning objectives are focused on strengthening independent character through the practice of making tempeh.

Implementation of Learning

Students follow several stages of activities:

- Observation at the tempeh production house
- Practice making tempeh in groups
- Written reflection and presentation of project results

Impact of Learning

Students demonstrate the ability to:

- Planning and dividing group tasks
- Responsible for each role
- Make decisions independently
- Solving problems that arise in practice

Tempe-based craft learning has been proven to be able to create a collaborative and contextual learning environment. Students do not only learn theoretically, but are directly involved in the process of making tempeh, starting from selecting raw materials, soaking, boiling, fermentation, to presenting the resulting product. This activity allows students to experience meaningful learning because it is carried out through real activities that are close to their daily lives.

Local values such as cooperation, responsibility, independence, tenacity, and preservation of local culture are successfully transmitted naturally during the learning process. When students work in groups and complete tasks together, they actively build positive social interactions, learn from each other, and appreciate each other's differences and contributions. This process not only strengthens technical skills in making tempeh, but also develops characters that are relevant to the needs of the 21st century.

This learning approach is very much in line with the contextual learning theory (Contextual Teaching and Learning) explained by I Made Suastra (2010:13). In his view, learning will be meaningful if students actively relate the material being studied to real experiences in everyday life. Suastra emphasized that "contextual learning provides space for students to understand abstract concepts through active involvement with their own social and cultural environment." In this context, tempeh as a local cultural product is not only a learning medium, but also a source of values and identity.

In addition, this activity also supports the concept of self-regulated learning developed by Zimmerman (2000:14), which emphasizes that students as active learners have the ability to set their own learning goals, strategies, and monitoring and evaluation of their learning achievements. Zimmerman explains that effective learning occurs when students have metacognitive awareness and control over their learning process. In the practice of making tempeh, students learn to plan activities, organize work steps, solve production challenges, and reflect on work results, so that they are able to develop high self-regulation skills.

This learning model is also consistent with the principle of learning by doing proposed by John Dewey, where learning will be more effective if students directly experience the learning process through meaningful real activities. Dewey (1938:67) stated that "education is not preparation for life; education is life itself." In tempeh-based craft learning, students do not only 'learn about tempeh' but

'learn through tempeh' - they experience values, processes, and social contexts that are directly related to their lives.

Furthermore, this learning also meets the demands of character education that is relevant to the local and national context. The Ministry of Education and Culture (2017:8) emphasizes that character education must be carried out in an integrative and contextual manner, by instilling values through direct experience and role models in real life. Through the tempeh making project, students are not only introduced to values, but are also given space to internalize, practice, and internalize these values in real actions.

Thus, the tempeh-based craft learning approach not only improves the cognitive aspects, but also the affective and psychomotor aspects of students. Learning becomes more enjoyable, meaningful, and useful, because students learn in a collaborative atmosphere, full of interaction, and based on local realities that they know. On the other hand, teachers act as facilitators who design relevant learning experiences and provide space for students to develop their full potential.

4. CONCLUSION

Craft learning by making tempeh that integrates local values has been proven to have a positive impact on the process and learning outcomes of students. This activity not only improves students' conceptual understanding of craft materials, but also touches on the affective and social aspects that are essential in character education. Through direct involvement in the process of making tempeh—starting from soybean processing, the fermentation process, to packaging the final product—students gain an authentic, enjoyable, and meaningful learning experience. This approach allows students to learn while experiencing, so that what they learn is not easily forgotten.

One of the significant impacts of this learning is the increasing independence of students. In the tempeh production process, students are trained to plan work steps, divide tasks into groups, and make independent decisions when facing challenges. They also learn to solve problems creatively and be responsible for the results of their work. This independence is not only useful in the context of learning, but also becomes an important provision in their daily lives and future.

In addition, this activity also strengthens students' relationship with local culture. Tempe as one of Indonesia's traditional foods has strong cultural and historical values. By understanding the process of making it and the role of tempe in people's lives, students will appreciate the cultural heritage of their ancestors and have the awareness to preserve it. This integration supports the formation of a positive national identity, where students not only know local culture as knowledge, but also as part of their identity.

Furthermore, this approach also creates a fun and meaningful learning experience. The learning process that is carried out directly, contextually, and based on real practice is much more effective in building deep understanding. Students feel enthusiastic and motivated because learning activities feel relevant to their lives. This proves that learning does not have to be boring or rigid, but can be designed with a creative and contextual approach.

From these findings, there are several important implications for the world of education:

Teachers are encouraged to use a project-based approach (Project-Based Learning) by utilizing local potential as a learning resource. In this context, teachers need to see the surrounding environment as a rich learning laboratory. Thus, learning becomes more alive, real, and meaningful. Activities such as making tempeh, processing natural materials, or exploring local crafts can be used as projects that not only hone students' skills but also strengthen character values.

Schools need to provide support for local culture-based learning activities, both in terms of policy and facilities. This strategy not only supports thematic learning, but is also in line with the character education mission initiated by the government. Schools can make such activities part of a flagship program, such as a local-based entrepreneurship program or thematic extracurricular activities. This support is important so that contextual learning can run sustainably and be integrated with the school's vision.

Further research is needed to develop similar learning models in other subjects. For example, local values can be integrated into social studies lessons through the study of the socio-cultural life of local communities, or into science lessons through the use of environmentally friendly traditional technology. The development of this cross-subject model will enrich humanistic and contextual learning strategies, as well as expand the positive impact of learning based on local values.

Thus, craft learning based on making tempeh is not only a means of developing skills, but also a strategic medium for strengthening character and preserving local culture. This approach is an alternative solution in presenting relevant, fun, and meaningful education for Indonesian students.

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