

EMBEDDING LOCAL WISDOM IN CURRICULUM: A PATHWAY TO SUSTAINABLE AWARENESS IN HIGHER EDUCATION

Hifni Septina Carolina¹, Diana Rochintaniawati¹, Riandi¹

¹ Universitas Pendidikan Indonesia, Bandung, Indonesia

* Corresponding email: hifnicarolina@upi.edu

ABSTRACT

In the fight against environmental degradation, local wisdom and the SDGs are intertwined. Students learn sustainability and local culture through local wisdom in the university curriculum. This study aims to describe the implementation of local wisdom and environmental ethics lectures to foster students' sustainability awareness. This study uses data collection techniques based on document review, questionnaires and interviews. The examined documents comprise the curriculum, textbooks, and additional instructional materials utilised in education. Surveys and interviews were administered to lecturers and students. The findings indicated that (1) the execution of lectures on local wisdom and environmental ethics is proceeding effectively, (2) the incorporation of local wisdom and environmental ethics into the curriculum requires enhancement to facilitate students' comprehension of the material in a tangible and factual context, (3) students exhibit commendable knowledge and awareness of sustainability. This study suggests that learning that includes sustainable principles based on local wisdom promotes meaningful experience and sustainable awareness growth.

Keywords: local wisdom, curriculum, sustainable awareness

INTRODUCTION

Higher education is crucial in the development of a generation that is not only academically proficient but also possesses a high level of sustainability awareness (Gatti et al., 2019; Sanchez-Carrillo et al., 2021). Integrating local wisdom into the educational curriculum is one method that can facilitate this accomplishment (Tung et al., 2023). Local wisdom, which includes values,

traditions and knowledge that are unique to a community, serves as a basis for raising awareness of the importance of environmental and social sustainability (Parameswara et al., 2020)

Local wisdom-based education is highly relevant in the current era of globalisation, as it enables students to recognise and appreciate their cultural heritage and provide innovative solutions to environmental problems (Agung et al., 2022). Kohsaka et al., (2021) have shown that the incorporation of these local values not only enhances students' learning experience but also equips them with the necessary skills to become socially and ecologically responsible and thoughtful individuals, so it is expected to help students to develop critical and creative thinking skills to address various sustainability issues. In addition, local wisdom-based education provides opportunities for students to engage directly with the community, thereby increasing the contextual relevance and practicality of the knowledge they acquire (Lestari et al., 2024).

One of the main barriers to achieving sustainability in education is the absence of integration between cultural values and contemporary education (Burns, 2015). Higher education frequently prioritizes the acquisition of technical and academic skills, while cultural values that are indicative of local wisdom are frequently overlooked (Abid Ghafoor Chaudhry et al., 2014). As a result, there is a gap between traditional knowledge and contemporary education, which can actually work together to facilitate comprehensive development. By incorporating local wisdom into the higher education curriculum, students can be taught to appreciate and apply cultural values in contemporary life, thereby increasing their awareness of the importance of sustainability. This effort has the potential to bridge the gap, which not only enhances students' learning experience but also prepares them to face global challenges with a more sustainable and inclusive approach (Lozano, 2006; Lubis et al., 2022)

Environmental management and social harmony are significantly influenced by local wisdom (Mungmachon, 2012). Communities are capable of preserving the equilibrium of the ecosystem and fortifying social relationships by implementing sustainable traditional practices (Lane et al., 2005). For instance, the Repong Damar Tradition is a prevalent agricultural and land management practice among the communities of West Pesisir, Lampung (Istiawati et al., 2020). Furthermore, education is instrumental in the preservation of cultural heritage by imparting traditional values and knowledge to the younger generation, ensuring that the knowledge remains pertinent in the contemporary era. Walter, (2009) suggests that the preservation of cultural heritage can be achieved through the incorporation of local wisdom into educational programs. Additionally, local wisdom-based practices, including organic agricultural methods and wise forest management, serve as compelling evidence that humans can coexist in harmony with nature (Chaiphar et al., 2013; Purnomo et al., 2023). These practices demonstrate that local wisdom not only upholds environmental sustainability but also preserves cultural values.

This article describes the integration of environmental ethics and indigenous knowledge lectures in the pursuit of the Sustainable Development Goals (SDGs), with a particular focus on Goal 4 (Quality Education) and Goal 11 (Sustainable Societies) (Franco et al., 2019). In responding to global environmental and social challenges, local wisdom provides solutions rooted in the traditions and practices of local communities. This framework emphasises the need for collaboration among various stakeholders, including government, academia and communities, to achieve the common goal of a more sustainable future, as well as the importance of environmental and cultural preservation. Therefore, the purpose of this article is to provide a comprehensive overview of the effect of implementing environmental ethics and local wisdom education courses on students' sustainability awareness.

METHODS

This research uses descriptive methodology to explain and analyse phenomena related to the integration of local wisdom into the higher education curriculum and its impact on increasing sustainability awareness among university students (Moeed et al., 2023). This research was conducted at a state university in Lampung that has incorporated local wisdom courses into its curriculum. The research participants consisted of two lecturers and 144 students from the university.

Data were collected through interviews, questionnaires, and document analysis. Questionnaires were given to students to collect data regarding their understanding of local wisdom and its influence on their sustainability practices. Data from interviews and questionnaires were analysed to see patterns and themes that emerged during the course implementation. Document review was conducted by examining the curriculum and syllabus of courses related to local wisdom. The documents analysed consisted of syllabi, textbooks, and additional teaching materials used in the learning process.

RESULTS AND DISCUSSION

Overview of the Integration of Local Wisdom in the Curriculum

Based on the results of the review of curriculum documents, it is known that the course of local wisdom and environmental ethics is a compulsory faculty course with a weight of 2 credits. Lectures on local wisdom and environmental ethics are designed to build sustainable awareness among students. The lesson plan is prepared based on the basic competencies to be achieved, which includes learning objectives, teaching materials, methods used, and an assessment system to measure student understanding. In the teaching process, several methods are applied, such as face-to-face lectures where lecturers deliver material interactively and involve active discussion. In addition, students are also given the opportunity to analyse case studies related

to local wisdom and environmental ethics, in order to understand their application in community life. Field practice activities are an important part, allowing students to observe and interact directly with local wisdom practices in the community. Students also work in group projects to design local wisdom-based solutions to existing environmental issues. Teaching materials include an understanding of local wisdom, cultural values that support sustainability, and examples of its application from various regions in Indonesia. In addition, a discussion of the principles of environmental ethics is also part of the material taught.

The implementation of local wisdom lectures in Lampung, which aims to strengthen the philosophy of life of the local community, can be understood through five main concepts that guide the socio-culture of Lampung people: Piil Pesenggiri, Juluk Adok, Nemui Nyimah, Nengah Nyampur, and Sakai Sambayan (Anggoroi, 2023). Piil Pesenggiri emphasises the importance of self-respect and dignity in social relations, which is manifested in mutual cooperation activities and joint management of natural resources (Bujuri et al., 2023). Juluk Adok teaches mutual respect between individuals, which can be applied in programmes that increase social solidarity. Nemui Nyimah, which emphasises harmony and tolerance, is particularly relevant in addressing social conflict and strengthening inter-ethnic and religious harmony. Nengah Nyampur encourages collaboration between different elements of society, which is reflected in community projects and creative economic development. Finally, Sakai Sambayan emphasises togetherness and mutual assistance, which is implemented through community cooperation in environmental management and social activities. All of these concepts play an important role in the social and cultural development of Lampung society.

The implementation of local wisdom education courses in higher education is designed through a comprehensive curriculum and syllabus, combining elements of theory and practice to build a deep understanding of local wisdom values in the context of sustainability (Lestari et al., 2024). The curriculum covers a range of topics, such as natural resource management, local traditions, and community-based research approaches. A variety of teaching methods are used, including group projects that involve students directly in the community, class discussions to explore different points of view, and case studies that provide opportunities to analyse real problems related to local wisdom and the environment. The implementation of this course has had a significant impact on increasing students' awareness of sustainability, as in figure 2. Students showed an increased understanding of environmental issues, such as climate change and biodiversity, through theoretical learning and field experience. In addition, there were positive changes in their attitudes and behaviours towards the environment, as seen from more active involvement in conservation activities and appreciation of sustainable practices already implemented in the community, showing a greater commitment to environmental preservation.

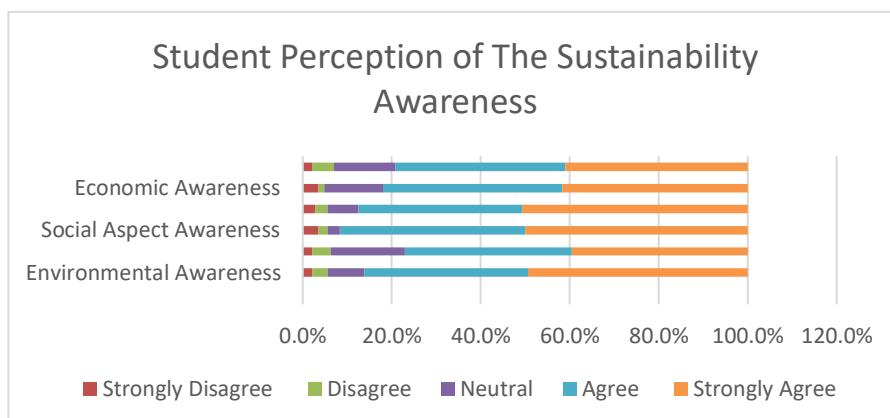


Figure 2. Graph of Student Perceptions of The Sustainability Awareness

Despite the challenges, there are great opportunities for universities to raise sustainability awareness through culture-based education. By integrating local values that support sustainability, universities can create a relevant and contextualised curriculum for students. Culture-based education allows students to understand the relationship between local wisdom and contemporary environmental issues, so that they can see the importance of cultural preservation as part of efforts to protect the environment. This opportunity can also be utilised to build partnerships between universities and local communities. Through this collaboration, students can be directly involved in sustainability projects that promote local wisdom, such as natural resource conservation programmes or the development of environmentally friendly products based on local traditions. Thus, despite the challenges of integrating local values into the curriculum, the opportunity to raise sustainability awareness through culture-based education is promising. Higher education has a strategic role in shaping a young generation that is not only knowledgeable but also concerned about the environment and culture. With the right approach, higher education can be a key driver in creating a more sustainable society that values local cultural treasures.

CONCLUSION

This research shows that the integration of local wisdom values, such as Piil Pesengiri, Juluk Adok, Nemui Nyimah, Nengah Nyampur, and Sakai Sambayan, in the higher education curriculum in Lampung is instrumental in shaping students' character. These courses enable students to better understand and appreciate their local culture, as well as raise awareness about social and environmental responsibility. These values contribute to students' character development, including fostering care for the environment and the surrounding

community. This research also emphasises the importance of applying local wisdom in education to foster sustainability awareness among university students, so that they can become active agents of change in maintaining culture and environmental sustainability.

REFERENCES

- Abid Ghafoor Chaudhry ... Farooq, H. (2014). Indigenous Knowledge and Sustainable Agricultural Development: A Case History of the Indus Valley, Pakistan. *European Academic Research*, II(6).
- Agung, A. A. G. ... Sudatha, I. G. W. (2022). Developing a Student Management Model Based on Balinese Local Wisdom. *Proceedings of the 4th International Conference on Innovative Research Across Disciplines (ICIRAD 2021)*, 613. <https://doi.org/10.2991/assehr.k.211222.034>
- Anggoroi, B. D. (2023). Harmoni Persatuan dalam Filsafat Piil Pesenggiri Masyarakat Lampung. *SOSIETAS*, 12(2). <https://doi.org/10.17509/sosietas.v12i2.58681>
- Bujuri, D. A. ... Fidian Abron. (2023). Environmental-based character education: Implementation of Lampung society life philosophy values (Piil Pesenggiri) in elementary school. *International Journal of Elementary Education*, 7(2).
- Burns, H. L. (2015). Transformative Sustainability Pedagogy: Learning From Ecological Systems and Indigenous Wisdom. *Journal of Transformative Education*, 13(3). <https://doi.org/10.1177/1541344615584683>
- Chaiphah, W. ... Naipinit, A. (2013). Local Wisdom in the Environmental Management of a Community: Analysis of Local Knowledge in Tha Pong Village, Thailand. *Journal of Sustainable Development*, 6(8). <https://doi.org/10.5539/jsd.v6n8p16>
- Franco, I. B., & Tracey, J. (2019). Community capacity-building for sustainable development: Effectively striving towards achieving local community sustainability targets. *International Journal of Sustainability in Higher Education*, 20(4). <https://doi.org/10.1108/IJSHE-02-2019-0052>
- Gatti, L. ... Seele, P. (2019). Education for sustainable development through business simulation games: An exploratory study of sustainability gamification and its effects on students' learning outcomes. *Journal of Cleaner Production*, 207. <https://doi.org/10.1016/j.jclepro.2018.09.130>
- Istiawati, N. F. ... Widodo, S. (2020). Construction of Krui Community Knowledge on Repong Damar Culture in Lampung's West Coast. *IOP Conference Series: Earth and Environmental Science*, 412(1). <https://doi.org/10.1088/1755-1315/412/1/012005>
- Kohsaka, R., & Rogel, M. (2021). *Traditional and Local Knowledge for Sustainable Development: Empowering the Indigenous and Local*

- Communities of the World*. https://doi.org/10.1007/978-3-319-95963-4_17
- Lane, M. B., & McDonald, G. (2005). Community-based environmental planning: Operational dilemmas, planning principles and possible remedies. *Journal of Environmental Planning and Management*, 48(5). <https://doi.org/10.1080/09640560500182985>
- Lestari, N. ... Suyanto, S. (2024). A systematic literature review about local wisdom and sustainability: Contribution and recommendation to science education. *Eurasia Journal of Mathematics, Science and Technology Education*, 20(2). <https://doi.org/10.29333/ejmste/14152>
- Lozano, R. (2006). Incorporation and institutionalization of SD into universities: breaking through barriers to change. *Journal of Cleaner Production*, 14(9–11). <https://doi.org/10.1016/j.jclepro.2005.12.010>
- Lubis, S. P. W. ... Yanto, B. E. (2022). The Effectiveness of Problem-based learning with Local Wisdom oriented to Socio-Scientific Issues. *International Journal of Instruction*, 15(2). <https://doi.org/10.29333/iji.2022.15225a>
- Moeed, A. ... Saha, S. (2023). Research Design and Methodology. In *Springer Briefs in Education: Vol. Part F2022*. https://doi.org/10.1007/978-981-99-7286-9_2
- Mungmachon, M. R. (2012). Knowledge and Local Wisdom : Community Treasure. *International Journal of Humanities and Social Science*, 2(13).
- Parameswara, A., & Wulandari, A. (2020). Sustaining Local Communities through Cultural Industries Based on Local Wisdom in Tigawasa Village. *Journal of Sustainable Development*, 13(6). <https://doi.org/10.5539/jsd.v13n6p139>
- Purnomo, A. R. ... Subekti, H. (2023). Embedding Sustainable Development Goals to Support Curriculum Merdeka Using Projects in Biotechnology. *International Journal of Learning, Teaching and Educational Research*, 22(1). <https://doi.org/10.26803/ijlter.22.1.23>
- Sanchez-Carrillo, J. C. ... Tobarra, M. A. (2021). Embracing higher education leadership in sustainability: A systematic review. In *Journal of Cleaner Production* (Vol. 298). <https://doi.org/10.1016/j.jclepro.2021.126675>
- Tung, T. M. ... Benavides, P. A. (2023). Significance of Higher Education in Transmitting Knowledge of Sustainable Developments: Insights from Vietnam. *ISVS E-Journal*, 10(11). <https://doi.org/10.61275/ISVSEJ-2023-10-11-01>
- Walter, P. (2009). Local knowledge and adult learning in environmental adult education: Community-based ecotourism in southern Thailand. *International Journal of Lifelong Education*, 28(4). <https://doi.org/10.1080/02601370903031363>