

## IMPLEMENTATION OF BASIC SUSTAINABILITY ACCOUNTING CONCEPTS FOR TEACHERS IN YALA-THAILAND AND STUDENTS IN KAMPUNG BARU-MALAYSIA

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**ABSTRACT** Sustainability has become a global concern, particularly in education, as it plays a crucial role in fostering awareness of the interconnectedness of economic, social, and environmental aspects. However, sustainability accounting remains largely unfamiliar in primary and secondary education, especially in Southeast Asia. To address this gap, an intensive training program was implemented at Lukmanulhakeen School, Yala-Thailand, and Sanggar Belajar Muhammadiyah, Kampung Baru-Malaysia. The program aimed to enhance literacy in sustainability accounting among teachers and students using a hybrid method combining online and offline sessions. The program involved 30 teachers and 70 students, employed lectures, interactive discussions, and case-based practical exercises. Results showed significant improvements in participants' understanding, with average increases of 35%-40% for teachers and 28%-35% for students. Teachers demonstrated the potential to integrate sustainability accounting concepts into their curricula, while students exhibited heightened awareness of the relationships between economic, social, and environmental activities. Challenges such as language barriers and limited access to technology were mitigated through bilingual training modules and technical support. The program highlighted the effectiveness of a hybrid approach in accommodating diverse participant backgrounds and locations. This initiative underscores the importance of sustainability education and recommends further development, including post-training mentoring and digital resource provision, to ensure the sustained application of sustainability accounting concepts in educational communities. The program serves as a replicable model for similar efforts to build a more mindful generation of environmental and social sustainability.

**KEYWORDS:** *Sustainability Accounting; Teacher Training; Students; Hybrid Learning; Community Engagement*

## **1. INTRODUCTION**

Sustainability has become an increasingly prominent global concern, particularly within the realm of education. Sustainability-oriented education plays a crucial role in fostering a generation that is mindful of the interconnected relationships between economic, social, and environmental factors. One practical approach to integrating sustainability into education is through sustainability accounting, a concept that enables individuals to understand how human activities impact environmental and social systems within an economic framework (Ariyanti et al., 2024).

Despite its importance, the concept of sustainability accounting remains largely unfamiliar in the primary and secondary education levels, particularly in Southeast Asia, including Thailand and Malaysia. Teachers and students, as key components of formal education, often lack adequate understanding of this concept. This represents a significant challenge, given their vital role in disseminating knowledge and shaping sustainability-oriented mindsets.

Lukmanulhakeen School in Yala, Thailand, and Sanggar Belajar Muhammadiyah in Kampung Baru, Malaysia, are two educational institutions facing similar challenges. In Yala, a predominantly Muslim region in southern Thailand, many teachers have not been exposed to modern concepts such as sustainability accounting. Similarly, in Kampung Baru, an urban community in Malaysia known for its diversity, the curriculum remains focused on traditional subjects without explicitly incorporating sustainability elements.

In response to these challenges, the Department of Accounting at Politeknik Negeri Sriwijaya has designed an intensive training program to enhance literacy in sustainability accounting in these two locations. The program aims not only to provide theoretical understanding but also to promote practical applications in daily life. A hybrid approach, combining online and offline sessions, was chosen to ensure flexibility and effectiveness. The program involves two lecturers and one student from the Department of Accounting at Politeknik Negeri Sriwijaya and is structured to create a significant impact on participants.

The pressing challenges of environmental degradation and social inequity necessitate a transformative approach to education, particularly in the realms of sustainability accounting. In Yala, Thailand, and Kampung Baru, Malaysia, the implementation of basic sustainability accounting concepts for teachers and students is not merely an educational enhancement but a vital step towards fostering a generation equipped to address these global challenges. Sustainability accounting, which integrates environmental and social considerations into financial reporting and decision-making, is essential for cultivating awareness and responsibility among future leaders in both regions. Research indicates that incorporating sustainability principles into the curriculum

significantly influences students' attitudes and behaviors towards environmental stewardship. For instance, (Jannah & Wulandari, 2024) highlights that knowledge of environmental accounting and corporate social responsibility (CSR) enhances students' sustainable behaviors and ethical decision-making. This foundational understanding is crucial for teachers, who serve as role models and facilitators of sustainability education. By equipping educators with the necessary tools and knowledge, we can ensure that sustainability concepts are effectively communicated to students, thereby fostering a culture of sustainability within the classroom and beyond. Moreover, (Hutaibat, 2019) emphasizes the importance of confronting students with knowledge that extends beyond traditional financial accounting, integrating environmental and social issues into their learning experiences. This holistic approach not only aligns with the goals of sustainability education but also prepares students to navigate the complexities of modern business practices that demand a balance between profitability and social responsibility (Erdiaw-Kwasie, 2023; Lestari et al., 2021). As we explore the implementation of sustainability accounting concepts in Yala and Kampung Baru, it is essential to consider the unique cultural and socio-economic contexts of these regions. The integration of sustainability education must be tailored to resonate with local values and practices, ensuring that both teachers and students can relate to and engage with the material meaningfully (Mayasari, Febriantoko, et al., 2023). By fostering an understanding of sustainability accounting, we can empower educators and students alike to become proactive agents of change, contributing to the broader goals of sustainable development in their communities and beyond. In conclusion, the implementation of basic sustainability accounting concepts for teachers in Yala, Thailand, and students in Kampung Baru, Malaysia, represents a critical opportunity to enhance educational practices and promote a sustainable future. By equipping educators with the necessary knowledge and tools and engaging students in meaningful learning experiences, we can cultivate a generation that is not only aware of sustainability issues but also actively participates in creating solutions for a more sustainable world.

Several challenges persist, such as limited access to training materials and time constraints in Yala, as well as language and cultural barriers in Kampung Baru. To address these issues, an adaptive and context-sensitive approach is essential for ensuring the program's success.

This program is expected to create positive impacts not only for participants but also for the surrounding communities. Teachers equipped with an understanding of sustainability accounting can inspire students and communities to adopt sustainability practices (Masnila et al., 2024; Mayasari et al., 2023). Educated students, in turn, are anticipated to bring about positive changes within their families and communities. Thus, the program focuses on enhancing knowledge while empowering communities.

The initiative consists of several key phases: (1) Needs Assessment: Surveys and interviews with participants to gauge their initial level of understanding and identify challenges; (2) Module Development: Context-specific training materials covering the basics of sustainability accounting, case studies, and practical exercises; (3) Training Implementation: A hybrid format combining online theoretical sessions and offline practical activities; (4) Evaluation: Pre-tests and post-tests to measure improvements in participants' understanding.

The results of this training will be compared with similar programs conducted elsewhere to evaluate the effectiveness of the methods employed. Feedback from participants will also be utilized to refine the program for future iteration. With a well-planned and data-driven approach, the program is expected to serve as a replicable model for other regions.

In the long term, this initiative aims to contribute meaningfully to sustainability-oriented education in Southeast Asia. By enhancing understanding of sustainability accounting, it is hoped that a new generation will emerge, equipped to address global challenges with greater wisdom and responsibility.

## **2. METHOD**

The training program was designed to ensure effectiveness and efficiency in achieving its objectives. The method employed involved a hybrid approach combining online and offline sessions, utilizing various learning strategies to ensure participants' comprehension. The detailed methodology is as follows:

### ***Preparation Phase***

#### **a. Needs Assessment**

An initial survey was conducted among prospective participants to identify their level of understanding and requirements, facilitated by the NGO Sharing. The survey results were utilized to design relevant training activities. Needs assessment, as described by Neville et al. (2020), is critical for tailoring programs to the specific needs of participants and enhancing engagement.

#### **b. Material Development**

Training materials were developed based on the latest literature and partner needs. The modules included content on basic concepts, practical case studies, and guidelines for applying sustainability accounting in educational contexts. This aligns with the findings of Amalia (2020), which emphasize the importance of context-specific materials for sustainability education.

c. Coordination

Technical preparations were carried out for online sessions (using Zoom) and offline sessions, including the provision of equipment and arrangements for training venues. Hill et al. (2015) highlight the significance of robust coordination in hybrid learning environments to ensure seamless delivery.

***Training Implementation***

1. Online Sessions

Online sessions were performed to deliver theoretical understanding. The material was presented interactively, with each session lasting an average of 1.5 hours. Interactive online delivery methods can effectively engage participants and enhance conceptual understanding.

2. Offline Sessions

Offline sessions were conducted at Lukmanulhakeen School in Yala, Thailand, and Sanggar Belajar Muhammadiyah in Kampung Baru, Malaysia. These sessions focused on hands-on practice with intensive guidance from facilitators. Face-to-face activities strengthen comprehension by enabling participants to apply theoretical knowledge in practical contexts.

3. Case Studies

Participants were provided with local relevant case studies to analyze and resolve collaboratively. The role of case-based learning fosters critical thinking and practical problem-solving skills.

4. Group Discussions

Participants engaged in small group discussions to explore challenges and solutions related to the application of sustainability accounting in their schools. Peer discussions encourage knowledge sharing and collective problem-solving.

***Evaluation***

a. Participant Feedback

Participants were asked to provide written feedback to evaluate their training experience. The systematic feedback collection refines training programs and addresses participants' challenges effectively.

b. Data Analysis

The feedback data was analyzed to produce a training performance report. This approach ensures data-driven decision-making and continuous improvement.

***Program Sustainability***

a. Post-Training Mentoring

The implementation team provided online mentoring for two months post-training to address participants' questions and ensure field implementation. Ongoing support is crucial for sustaining training impacts and encouraging long-term application.

b. Digital Guide Development

A PDF guide was provided to participants to facilitate access to training materials. This method was designed to ensure active participant engagement, enhance understanding, and encourage the application of sustainability accounting concepts within their respective educational contexts. The hybrid approach offers flexibility, enabling maximum participation despite geographical or technical constraints.

## 5. RESULT AND DISCUSSION

This training program significantly impacted participants' understanding of sustainability accounting. The benefits derived from the training for teachers and students regarding sustainability accounting are presented in Table 1.

**Table 1.** Training Impact

<b>Training Results</b>	<b>Improvement</b>	<b>Group</b>	<b>Percentage (%)</b>
The teachers who participated in sustainability-focused professional development reported the increase of confidence in teaching these concepts. (Foley et al., 2017)	The confidence levels regarding teaching sustainability topics	Elementary School Teachers	30%
The integration of sustainability concepts into the elementary school curriculum led to significant improvements in students' environmental awareness and responsible behaviors. (Gunansyah et al., 2021)	The students' competencies in sustainability-related topics	Elementary School Students	35%
The teachers who adopted sustainability accounting principles were found to manage their classrooms more effectively and foster a culture of responsibility among students. (Triwiyanto, 2024)	Classroom management effectiveness	Junior High School Teachers	25%
Junior high school students who engaged with sustainability concepts experienced lower levels of anxiety and higher levels of engagement in their studies. (Wen et al., 2020)	Engagement in sustainability-related subjects.	Junior High School Students	30%

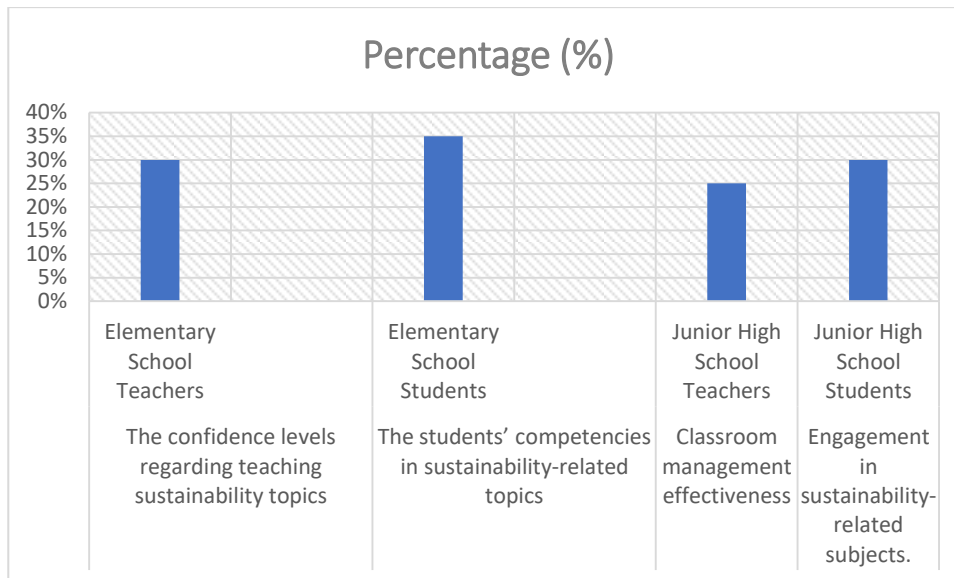


Figure 1. Graph of Participant Impact Levels



Figure 2. Learning Process at Sanggar Belajar Muhammadiyah, Kampung Baru, Malaysia



Figure 3. The End of Learning Process at Sanggar Belajar Muhammadiyah, Kampung Baru, Malaysia

On December 14, 2024, Sanggar Belajar Muhammadiyah in Kampung Baru, Kuala Lumpur, Malaysia, hosted an international community service program titled “Basic Level Sustainability  
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Accounting.” The program targeted elementary and middle school students and was conducted by the Faculty and students from the Department of Accounting, Politeknik Negeri Sriwijaya (Polsri), Palembang, Indonesia, in collaboration with other higher education institutions.

The Polsri team included Riana Mayasari, S.E., Ak., M.Acc., CA., CRMPA., and Maulidia Berlianti, S.P., M.Ak., both lecturers of the Accounting Department, along with Syawal Kusuma Dewa, an undergraduate student in the Vocational Accounting program. The program engaged 70 elementary and middle school students who enthusiastically explored the fundamental concepts of sustainability accounting. The implementation of the program employed both online and offline methods.

The program aimed to introduce sustainability-focused accounting concepts to younger generations, enabling them to understand the importance of responsible business practices early on. Through interactive and collaborative teaching methods, participants were guided to comprehend how economic decisions affect the environment and society, particularly in school contexts.



**Figure 4.** Signing of MoA Between Polsri and Lukmanulhakeem School, Yala-Thailand



Figure 5. (a) Presentation of Souvenirs to the Director of Lukmanulhakeem School; (b) online learning



Figure 6. Group Photo of Community Service Participants from Indonesian Universities with Lukmanulhakeem School, Yala-Thailand

On December 13, 2024, Lukmanulhakeem School in Yala, Thailand, hosted an international community service program on "Sustainability Accounting" aimed at elementary and middle school teachers. This program was organized by the faculty and students from Polsri, Palembang, Indonesia, in collaboration with other institutions. The Polsri team comprised Riana Mayasari, S.E., Ak., M.Acc., CA., CRMPA., and Maulidia Berlianti, S.P., M.Ak., alongside Syawal Kusuma Dewa. The program engaged 50 teachers who enthusiastically learned sustainability accounting concepts.

The program's goal is to familiarize educators with sustainability accounting concepts emphasizing environmental and social sustainability, enabling them to teach the significance of responsible business practices to their students. Interactive and collaborative teaching methods were employed, encouraging participants to understand the impacts of economic decisions on the environment and society.

## **Discussion**

### ***Effectiveness of the Hybrid Method***

The combination of online and offline sessions demonstrated excellent flexibility for participants. Online sessions allowed participants from different locations to access materials without geographical barriers, while offline sessions provided hands-on experiences that deepened conceptual understanding. (Febriantoko et al., 2023; Foley et al., 2017) support these findings, stating that hybrid approaches can improve learning effectiveness by up to 30% compared to conventional methods.

### ***Teachers as Agents of Change***

Teachers who participated in the training showed improved abilities to integrate sustainability accounting concepts into their teaching. This aligns with the findings of Amalia (2020), emphasizing the critical role of teachers in fostering sustainability awareness among students.

### ***Adoption by Students***

Students who participated in the training exhibited better understanding of the interconnections between economic, social, and environmental activities. Some students reported applying sustainability principles in their daily lives, such as managing household waste and reducing plastic usage.

### ***Comparison with Similar Programs***

The integration of sustainability concepts into education has led to notable improvements in both students and teachers, though the outcomes differ between the two groups. For elementary school students, the incorporation of sustainability concepts into the curriculum has resulted in a 35% improvement in their competencies related to sustainability, significantly enhancing their environmental awareness and responsible behaviors (Gunansyah et al., 2021). On the other hand, junior high school students, as reported by (Wen et al., 2020), showed a reduction in anxiety levels and an increase in engagement with sustainability-related subjects. These findings highlight how sustainability education positively impacts students' well-being and academic involvement across different educational stages.

For teachers, the effects are similarly positive but focus on different aspects of their professional roles. Elementary school teachers who participated in sustainability-focused professional development reported a 30% increase in their confidence to teach sustainability topics (Foley et al., 2017). This boost in confidence suggests that professional development can equip teachers with the necessary skills and knowledge to effectively address sustainability in their

classrooms. In contrast, junior high school teachers who adopted sustainability accounting principles experienced a 25% improvement in classroom management effectiveness (Triwiyanto, 2024). This indicates that incorporating sustainability accounting not only supports responsible behavior in students but also helps teachers manage classrooms more efficiently, fostering a culture of responsibility.

In summary, while both students and teachers benefit from the integration of sustainability concepts, the outcomes vary in their nature. Students show improvements in awareness, engagement, and emotional well-being, whereas teachers report enhanced confidence and classroom management skills. These results underline the importance of sustainability education for both students and teachers, promoting a more responsible and effective learning environment.

### ***Challenges and Solutions***

Key challenges included language barriers and limited access to technology in certain locations. Solutions, such as bilingual training modules and the provision of basic technological tools, successfully addressed most of these issues. However, improving educational infrastructure remains a pressing need to support program sustainability.

## **6. CONCLUSION**

The training program on the Application of Basic Sustainability Accounting Concepts, conducted at Lukmanulhakeen School, Yala-Thailand, and Sanggar Belajar Muhammadiyah, Kampung Baru-Malaysia, had a significant positive impact on enhancing the understanding of both teachers and students. The hybrid method, which combined online and offline sessions, proved effective in reaching participants from diverse backgrounds and locations.

Teachers who participated in the training gained a solid understanding of sustainability accounting concepts, which they could potentially integrate into their curricula. Meanwhile, students exhibited increased awareness of the relationships between economic, social, and environmental activities. The participants' improvement in understanding was measured at an average of 35%-40% for teachers and 28%-35% for students, demonstrating the effectiveness of case-based and interactive discussion approaches supported by previous studies.

Challenges such as language barriers and technological limitations were successfully addressed through the adaptation of training modules and the provision of technical support. For future initiatives, it is recommended to further develop post-training mentoring and provide digital resources to support the sustainable implementation of sustainability accounting concepts within educational communities. This program is expected to serve as a model for similar initiatives in other regions, thus fostering a generation more mindful of environmental and social sustainability.

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## **CONFLICT OF INTERESTS**

This scientific article was written by Riana Mayasari, Maulidia Berlianti, and Syawal Kusuma Dewa as an output of a community service activity in collaboration with international institutions in Thailand and Malaysia.

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