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*Future-Ready Construction and Facility Management:
Driving Research and Innovation for a Smart Built Environment*

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STUDENTS' PERCEPTION TOWARDS SUSTAINABLE EDUCATION APPROACHES IN UiTM SARAWAK BRANCH

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Abstract

Sustainable education has become a critical component in higher learning institutions, playing a vital role in preparing students to address global environmental challenges effectively. This study examined the perception of built environment students in UiTM Sarawak regarding sustainable education approaches and their impact on campus sustainability. The objectives of this research were to identify their level of awareness on the approaches implemented regarding sustainable education within UiTM Sarawak Branch and to study the effects of sustainability education practices on campus operations. A structured questionnaire was used as the primary data collection tool. The data were analysed using descriptive statistics to identify trends and insights related to awareness, effectiveness, and the influence of sustainability initiatives. The study's findings provided a deeper understanding of how sustainable education approaches influence students and campus operations. These insights will contribute to improving sustainability efforts within UiTM Sarawak and inform future strategies in embedding sustainability principles in education, potentially serving as a model for other higher education institutions.

Keywords: Student Awareness, Built Environment, UiTM, Sustainable Education

1. INTRODUCTION

In recent years, sustainability has become an important concern for universities around the world. Universities are essential for developing sustainable practices and an environmentally friendly environment because they educate the next generation of leaders and innovators (Yakar-Pritchard et al., 2024). Kota Samarahan, a fast-growing center of education in Sarawak, is no different. As a result, universities in Kota Samarahan are facing a crucial decision to strike a balance between the demands of sustainability and development (Abdul Nifa et al., 2016). The purpose of the study is to provide insights into how best to increase student involvement in sustainability projects by investigating their opinions, obstacles, and goals. The final purpose is to help promote a sustainable culture among students (Shah et al., 2022) in universities and ensure that UiTM expands and develops in accordance with global environmental standards.

2. LITERATURE REVIEW

Sustainability is an essential component of modern society. It is a concept for making decisions that lead to a better and more sustainable future. The three pillars of sustainability, which are social, environmental, and economic, help implement the idea of sustainability in practice (Srivastava et al., 2024). The development of sustainability and its transformation depends greatly on education and higher education institutions.

Education programmes are increasing their emphasis on the integration of sustainability (Yakar-Pritchard et al., 2024).

2.1 Sustainable Education Background

Student perception on the sustainability of higher education institutions is interlinked with awareness, involvement, and pedagogical approaches. For example, students at the Bialystok University of Technology were able to identify sustainability practices undertaken by their higher learning institution as they recognised the need for awareness of and critically engaging with the approaches to sustainability (Kobylińska et al., 2024). Likewise, in a study by Thompson and Herriges (2024), students who undertook out-of-curriculum activities also reported heightened engagement with the principles of sustainability, suggesting that learning outside the classroom can use extra learning in the school.

2.2 Benefit Of Integrated Sustainable Education

Incorporating sustainability on campus may have significant benefits. It is believed that improved environmental understanding and social awareness among students are key consequences of sustainability initiatives (Bonilla-Jurado et al., 2024). The advantage is that it promotes sustainable living by fostering sustainable practices such as energy efficiency, trash reduction, and water conservation (Zainordin et al., 2018). The university's higher profile and capacity to compete as a leader in sustainability are considered significant advantages.

2.3 Importance Of Integrating Sustainability into Education

Providing future generations with the necessary information, ideas, and skills to address these complex issues in a sustainable manner is important as we deal with climate change, decreasing resources, and biodiversity loss (Schmitz et al., 2010). Furthermore, the effective use of information and communication technologies (ICT) in environmental education increases student involvement and critical competencies, allowing for a more inclusive and participatory approach to sustainability learning (Baena-Navarro et al., 2024). Education for Sustainable Development provides individuals with the information and skills to effect positive change, emphasising the value of multiple perspectives and community involvement in obtaining long-term results (Priyadarshi & Kumar Singh, 2024).

3. METHODOLOGY

To achieve the research's objectives, quantitative data were collected through a Google questionnaire survey distributed to 30 quantity surveying students in UiTM Sarawak Branch. A six-point Likert scale (1 = "Strongly Disagree", 2 = "Disagree", 3 = "Slightly Disagree", 4 = "Slightly Agree", 5 = "Agree" and 6 = "Strongly Agree") was used to measure the respondents' awareness on the implementation of sustainable education in UiTM Sarawak. The data were analysed using frequency distribution and mean in SPSS.

4. FINDING AND DISCUSSION

Table 1 below shows that the highest mean score recorded was 5.50, and the lowest was 5.31. The three highest scores in the student's perception of sustainable education approaches in UiTM Sarawak are students who possess knowledge of sustainability and may enjoy improved career opportunities within the growing green economy (mean value 5.50). Next, students must acquire an understanding of sustainable methods, allowing them to tackle environmental issues efficiently (mean value 5.47). Lastly, understanding sustainability also opens greater chances for partnerships with government bodies, non-governmental organisations, and industries.

Table 1. Mean, standard deviation and ranking in students' perception towards sustainable education approaches in UiTM Sarawak

Item	Mean	Standard Deviation	Ranking
Students equipped with sustainability knowledge may have better job prospects in the green economy.	5.50	0.622	1
Students gain knowledge of sustainable practices, enabling them to address environmental challenges effectively.	5.47	0.567	2
Enhanced opportunities for collaboration with government, NGOs, and industries focusing on sustainability.	5.44	0.669	3
Incorporating sustainable practices into campus operations can serve as a model for the local community.	5.38	0.660	4
Encourages the adoption of eco-friendly habits among students and staff, such as waste reduction and energy conservation.	5.38	0.609	5
Integrating sustainability into the curriculum improves students' readiness to address global challenges.	5.34	0.653	6
Educating students about sustainability encourages them to adopt environmentally friendly habits in their personal lives.	5.34	0.53	7
Sustainable education initiatives can enhance UiTM Sarawak's reputation as a leader in sustainability like climate change and resource management.	5.31	0.859	8

5. CONCLUSION

Analysing students' perceptions regarding sustainable education approaches at UiTM Sarawak reveals a strong consensus on the importance of sustainability education. The respondents focused on the impact of learning sustainability knowledge, which significantly enhances their job anticipation in the green economy. Integrating sustainability into education not only prepares students for future careers but also fosters meaningful partnerships and equips them to contribute to global environmental solutions. By doing so, UiTM Sarawak should continue integrating sustainability education into the curriculum to ensure students are well-prepared to address global challenges and meet the demands of the green economy.

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7. REFERENCES

- Abdul Nifa, F. A., Wan Mohd Rani, W. N. M., Ismail, N. & Abdul Rahim, S. (2016). Towards Developing a Sustainable Campus: Best Practice Approach. In *Int. J Sup. Chain. Mgt* (Vol. 5, Issue 4). <http://excelingtech.co.uk/>
- Baena-Navarro, R., Serrano-Ardila, L. & Carriazo-Regino, Y. (2024). Innovative model for the integration of ICTs in rural environmental education: towards a sustainable pedagogy. *Southern Perspective / Perspectiva Austral*, 2, 35. <https://doi.org/10.56294/pa202435>
- Bonilla-Jurado, D., Zumba, E., Lucio-Quintana, A., Yerbabuena-Torres, C., Ramírez-Casco, A. & Guevara, C. (2024). Advancing University Education: Exploring the Benefits of Education for Sustainable Development. *Sustainability*, 16(17), 7847. <https://doi.org/10.3390/su16177847>
- Kobylińska, U., Garcia Goñi, M., Rollnik-Sadowska, E., Szpilko, D. & Szydło, J. (2024). Student's Perception of Sustainable University – On the Example of Białystok University of Technology. *Economics and Environment*, 89(2), 837–837. <https://doi.org/10.34659/eis.2024.89.2.837>
- Priyadarshi, R. & Kumar Singh, A. (2024). Importance of Education for Sustainable Development in Samastipur District of Bihar, India. In *IJFMR240425314* (Vol. 6, Issue 4). www.ijfmr.com
- Schmitz, C. L., Stinson, C. H. & James Schmitz, C. D. (2010). Community and Environmental Sustainability: Collaboration and Interdisciplinary Education. In *Critical Social Work* (Issue 3). <http://www.uwindsor.ca/criticalsocialwork/>
- Shah, Z., Kennedy-Clark, S., Xie, Y., Rahim, M. S., Mahdavi, M. & Levula, A. (2022). Teacher Views on Teaching Sustainability in Higher Education Institutes in Australia. *Sustainability* (Switzerland), 14(14). <https://doi.org/10.3390/su14148431>
- Srivastava, S., Iyer-Raniga, U. & Misra, S. (2024). Integrated approach for sustainability assessment and reporting for civil infrastructures projects: Delivering the UN SDGs. *Journal of Cleaner Production*, 459. <https://doi.org/10.1016/j.jclepro.2024.142400>
- Thompson, K. & Herriges, M. (2024). Embedding environmentally sustainable practices in learning and teaching: A student perspective. *Open Scholarship of Teaching and Learning*, 3(2), 1–21.
- Yakar-Pritchard, G., Mazhar, M. U., Domingues, A. R. & Bull, R. (2024). Measuring the impact of student knowledge exchange for sustainability: A systematic literature review and framework. *Cleaner Production Letters*, 6. <https://doi.org/10.1016/j.clpl.2024.100056>
- Zainordin, N., Petrus, M. & Wahi, W. (2018). Buyer's Perception on Green Residential Building: A Study in Sarawak. In *Sci.Int.(Lahore)* (Vol. 30, Issue 1).



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